COGNITIVE FACTORS ASSOCIATED WITH DEPRESSION IN PRESBYTERIAN (USA) CLERGY: A COMPARISON STUDY WITH MENTAL HEALTH COUNSELORS

By

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The purpose of this study was to apply Aaron Beck's cognitive theory of depression in an investigation of levels of depression in Presbyterian (USA) ministers. Specifically, this research was an attempt to ascertain through use of the Dysfunctional Attitudes Scale (DAS) the presence and level of attitudes Beck theorized to be associated with the syndrome of depression. These attitudes were evaluated as predictors of the current level of depression as measured by the Center for Epidemiological Studies--Depression Scale (CES-D). An additional purpose of this research was to determine whether levels of depression and dysfunctional attitudes in Presbyterian ministers occurred at rates similar to a cohort of comparably trained help-giving professionals, namely, mental health counselors.

The sample consisted of respondents to a nationwide random sampling of Presbyterian (USA) clergy and members of the American Mental Health Counselors Association. Five hundred fifteen (51.5% clergy, 54.2% female) subjects composed the source for the data analysis.

Multiple regression procedures were utilized for analysis of the data. Level of dysfunctional attitudes, group membership, gender, age, marital status, racial and ethnic background, tenure in profession and type of service were evaluated as predictor variables. Both CES-D and DAS scores were studied as outcome variables. No statistically significant interactions were established in either model.

The level of dysfunctional attitudes was predictive of an increase in the CES-D score. Additionally, married participants demonstrated significantly lower scores on the CES-D while marital status "other" participants scored higher. Finally, increased length of service in one's profession was associated with a decreased level of depression.

Increased age in respondents was associated with lower DAS scores. The longer that one was in his or her profession, the higher the DAS score. By group, Presbyterian ministers exhibited a significantly higher mean score on the DAS. This was in contrast to no statistical difference between groups on level of depression.

Using a cutoff score of 17 on the CES-D, 11.32% and 15.6% of the clergy and counselors, respectively, were identified as possible cases of depression. Recommendations for educational interventions and further study of moderating variables are included.

CHAPTER I
INTRODUCTION

A Perspective on Mental Health

The period in which we currently live is characterized by some mental health specialists as one of heightened anxiety and melancholia. The results of longitudinal studies conducted by the National Institute of Mental Health appear to confirm an increasing level of distress in our society. For example, the total number of patient care episodes associated with mental health rose from 4.2 million in 1971 to 7.9 million in 1986, a change of 88%. Similarly, during the same period, there was a 58% elevation in the number of organizations providing mental health services (National Institute of Mental Health, 1990). More recently, for the year 1988 an estimated average of 227,900 persons were treated daily as inpatients for problems associated with their mental health (U.S. Bureau of the Census, Statistical Abstract, 1991).

Studies describing the rates of health-seeking behavior only begin to depict the significant underlying costs of diminished psychological health in our citizenry. According to Rice, Kelman, and Miller (1991), losses associated with mental health problems resulted in a $103.7 billion burden on American society in fiscal year 1985. This statistic reflects expenses related to direct costs for services, loss in production, mortality, and other related expenditures for mental

health. It is anticipated these losses in personal and economic productivity will increase 24.6% to $129.3 billion by 1988. Further, the United States Bureau of the Census (1991) estimates expenditures of $95 per capita on mental-health-related concerns during 1988.

The evidence of an increase in emotional distress in our society is prompting a wide range of responses on the part of governmental and educational agencies. The development of educational interventions designed to raise sensitivity to mental health issues reflects a concern to enhance the quality of citizens' lives. Programs on topics such as stress, depression, suicide, and abuse of drugs, children, and spouses, as well as the avenues by which to seek help, are demonstrated at national and local levels. Even so, 39,707 persons are thought to have died from mental health complications in 1985 (Rice et al., 1991). Additionally, results of the 1985 National Nursing Home Survey indicate 66% of the resident population under care suffered from at least one diagnosable mental disorder (National Institute of Mental Health, 1990).

The helping professions are not immune from the factors that diminish the general public's mental health. Anecdotal and empirical evidence are beginning to shed light on the distress of the professionals to whom others turn for help. Mismatches among vocational expectations, level of control, work and role overload, and degree of needed social support can potentiate personal dysfunction. Levi (1990) notes that reactions to such disparities in the workplace can result in emotional, cognitive, physical, and behavioral

symptoms, which under intensity can lead to disease. Thomas Maeder (1989a) concludes that the helping professions, notably psychotherapy and ministry, appear to attract persons who may be vulnerable to emotional instability. Lured by images of power, interpersonal influence, or altruism, these professionals may be unable to resolve their own underlying problems and, as a consequence, afflict their personal and professional lives.

In a survey of nonmedical psychotherapists working in a variety of clinical settings (e.g., mental health centers, psychiatric hospitals, university counseling centers, and private practice), Deutsch (1985) found that 82% of the respondents reported having experienced significant relationship problems. Further, 57% had experienced depression, 27% of whom sought therapy. Eleven percent of these professionals utilized medications with 3% being hospitalized for treatment of depression on at least one occasion. Deutsch also reported that 14% of the participants acknowledged abuse of substances.

Emotional distress and problems with role and work overload and burnout have been described in several professions including social workers (Cournoyer, 1988; Oberlander, 1990; Ratliff, 1988) and psychologists (Ross, Altmaier, & Russell, 1989; Thoreson, Budd, & Krauskopf, 1986). Additionally, White and Franzoni (1990) reported graduate counseling students in their study reflected higher levels of psychological disturbance than did the general population norms on six of the seven Minnesota Multiphasic Personality Inventory scales under study, including depression. Although such a study does not

depict the state of students' mental health, it may give some indication for adverse change under the duress of future professional practice.

In summary, epidemiological studies that describe mental health issues in our country illustrate the impact of diminished emotional well-being at all levels. Anecdotal and empirical studies appear to confirm that the helping professions, as well, suffer from many of the same problems. Endeavors, therefore, which seek to shed light on the complex factors associated with mental health are important for their potential to enhance the quality of individual life and mission of community.

Statement of the Problem

The focus of this research was to determine the existence of relationships between attitudes theorized to be related to depression and a measure of the current level of symptoms associated with the syndrome of depression. Evidence of these relationships may help to characterize the influence of these pathogenic attitudes and the likelihood that persons ascribing to such attitudes may be susceptible to depression.

The population focus of the research was a specific cohort of helping professionals, Presbyterian Church (U.S.A.) ministers. A comparative population of mental health counselors was studied to further clarify attributes distinctive to the clergy. Presbyterian ministers espouse a belief system that, if adhered to, may attenuate the influence of attitudes that are, according to Weissman and Beck (1978), associated with depression. The theology upon which

Presbyterian doctrine is based, namely the Reformed tradition of church history, ideally moderates the content of these depressogenic attitudes (e.g., the exaggerated needs for autonomy, acceptance, love, entitlement, perfectionism, or omnipotence) that are believed to exacerbate depression. These fundamental theological schemas underpin the ministers' personal religious faith and professional conduct. It is logical to think the clergy's commitment to these beliefs may provide a type of cognitive resistance to depression.

Little empirical data exist to describe the prevalence of depression in either the ministerial or mental health counselor vocational groups. Nor is it known whether prevalence rates differ between these two groups. Therefore, evidence related to prevalence rates and the existence of relationships between cognitive attitudes and depression may further validate the cognitive theory of depression. The development of educational and therapeutic interventions to prolong the personal and professional contributions of these professionals can then follow.

The Epidemiological and Social Significance of Depression

Reus (1983) suggested the entire history of medical psychology can be understood in terms of the evolution in the conceptualization, diagnosis, and treatment of depression. The nomenclature used to characterize depression reflects the breadth of this change. Initially depicted as melancholia, and later as an affective disorder, depression is currently classified as a disorder of mood (American Psychiatric Association, 1987).

The World Health Organization has estimated some 100 million persons worldwide suffer from a depressive disorder (Marsella, Hirschfield, & Katz, 1987). In the United States, of the 28.9 million persons who may have suffered from any mental disorder during a 1-month period in 1989, an estimated 5.2% were depressive in nature (National Institute of Mental Health [NIMH], 1991). More significant is the calculation that 8.3% of the adult population over the age of 18 will suffer with symptoms of clinical depression at some point in the course of their lifetime (NIMH, 1991; see also Myers, Weissman, Tischler, Holzer, Leaf, Orvaschel, Anthony, Boyd, Burke, Kramer, & Stoltzman, 1984). In a 1986 survey of specialty mental health inpatient, outpatient, and partial care programs, the primary diagnosis of mood disorder accounted for 22% of all persons under care and 14% of all admissions (National Institute of Mental Health, 1990).

The morbidity costs, the loss of production associated with depression, are considered a significant drain on our economic infrastructure. Results of studies undertaken by the Alcohol, Drug Abuse, and Mental Health Administration (Rice, Kelman, & Miller, 1991) indicate depression results in more time in bed than any other single illness including ailments such as ulcers, diabetes, high blood pressure, and arthritis. Further, these findings characterize 1 employee out of every 20 as experiencing depression with overall associated costs of lost time from work amounting to $17 billion in 1989.

Outcome studies on depression also suggest an alarmingly high comorbidity with other physical ailments. Diagnosis with any psychiatric disorder is related to a higher risk for some form of medical illness (Hall, Gardner, Stickney, LeCann, & Popkin, 1980). In a recent 1-year outcome study of persons diagnosed with major depression, half of the subjects were also diagnosed with a coexistent, nonaffective psychiatric or medical illness (Keitner, Ryan, Miller, Kohn, & Epstein, 1991).

In summary, epidemiological studies in depression describe a malady of relatively high lifetime prevalence involving significant personal suffering and economic drain on the individual and workplace. A goal of better understanding the various factors and mechanisms associated with depression is merited. Resultant development of more effective educational and therapeutic interventions may reduce personal suffering and restore an individual's contribution to home, work, and community.

Depression as an Axis 1 Disorder

Depression is categorized as a disorder of mood. Disorders of mood can be understood in terms of their pattern and type, either depressed or manic in nature. The mood syndrome represents a clustering of symptoms that persist over a minimal period of time. For clarity of diagnosis, any single episode associated with the syndrome must not be attributable to a known organic factor such as alcohol impairment or as a facet of a nonmood psychotic disorder (e.g., delusional disorder). In addition, diagnosis of the depressive

syndrome must rule out the possibility of an organic mental disorder (American Psychiatric Association, 1987).

For purposes of this study, the focus of assessment was the cluster of symptoms associated with major depression. The diagnostic criteria utilized are consistent with characteristics defined in the Diagnostic and Statistical Manual of Mental Disorders (Third Edition, Revised) (American Psychiatric Association, 1987). Accordingly, five of the following symptoms must be present in the same 2-week period and prevalent on a daily basis: (a) a depressed mood, (b) markedly decreased interest in pleasurable activities, (c) significant gain or loss in body weight not attributable to dieting (i.e., more than 5% of body weight in a month) or loss of appetite, (d) either a lack of or overindulgence in sleep, (e) fatigue or noticeable energy loss, (f) feelings of excessive or inappropriate guilt, (g) diminished capacity to concentrate or make decisions, and (h) repetitive thoughts about death that may include suicidal ideation, an attempt, or development of a specific plan. Either depressed mood or loss of interest in pleasurable activities must be present as one of the five key symptoms. Further, diagnosis requires that an organic factor be ruled out as the source or maintenance of the mood disorder. No evidence must exist that delusions or hallucinations have been present for as long as 2 weeks without the presence of outstanding mood symptoms. Lastly, the depressed mood is not overlaid on schizophrenia, schizophreniform disorder, delusional disorder, or a psychotic disorder not otherwise specified (American Psychiatric Association, 1987).

The range of symptoms associated with depression depict a distress that affects the breadth of human experience. During an episode of depression, one's physical, emotional, intellectual, and behavioral domains are involved, and dysfunctions of varying degrees can occur in any or all (Alcohol, Drug Abuse, & Mental Health Administration, 1991). Criteria for the severity of an episode range from mild to severe, with and without psychotic features that may or may not be mood congruent. Partial and full remission of an episode are distinguished by any history of dysthymia, a low-level but chronic mood disturbance, and period of time free of symptoms (American Psychiatric Association, 1987).

Diagnosis of chronic or melancholic types of depression is distinguished by elevated or more intense symptoms related to mood upon awakening, psychomotor agitation, eating and weight loss patterns, previous history of personality disturbances and major depressive episodes, and idiosyncratic response to antidepressant drug therapy. Additionally, timing of onset, personal history of mood episodes over 3 years, and duration of remission are considered (American Psychiatric Association, 1987).

There is a significant presence of a depressed mood phase within the second major classification of mood disorders, namely, the bipolar disorder. The manic or elevated phase of mood is followed by a characteristic swing to symptoms of depression. Essential diagnosis of a depressive disorder is contingent on one or more episodes of depression without the presence of manic or hypomanic

features (American Psychiatric Association, 1987; Goldstein, Baker, & Jamison, 1986).

A Theoretical Framework

The idea that cognitions play a role in the formation and maintenance of human behavior was elaborated by Bandura (1977) in his principle of reciprocal, triadic determinism. According to Bandura's social learning theory, behavioral, cognitive, genetic, and environmental factors operate as the interacting determinants of one another. Persons serve as reciprocal contributing influences on their own motivation and behavior through a system of bidirectional causation. Each facet of human perception, behavior, and reinforcement influences one's future experiences with the same stimuli (Bandura, 1977, 1986).

Aaron Beck (1976) elaborated Bandura's earlier thinking by suggesting an affective response is determined in the way an individual perceives and conceptualizes experience. He rejected the idea a human is controlled by powerful unconscious forces outside the realm of personal management. Rather, Beck located the basic problem of emotional disturbance in a person's misconceptions about self, irrational beliefs, and faulty assumptions about reality (Weissman & Beck, 1978). Accordingly, it is possible for a person to alter mood and behavior by changing dysfunctional thinking and perceptual patterns. These changes are facilitated through planned behavioral experimentation designed to reinforce more positive attitudes acquired through new experience. This rational approach to emotional disturbance consists in a person identifying

misconstrued notions about reality, putting to the test the validity of their faulty assumptions, and subsequently developing and testing more rewarding substitutions.

Components of the Cognitive Model

Beck's concept of maladaptive cognitions is elaborated in a structural model. The model consists of immediate events, information-processing styles, and underlying patterns of belief. At the symptomatic level of experience are cognitive events. These are best understood as the *automatic thoughts* associated with first impressions in encountering a stimulus. While not often conscious to the person in the moment, these thoughts may be retrieved through focused inquiry and self-study (Marziller, 1986; Meichenbaum, 1977). For example, upon receiving a phone call late in the day and confronted with fatigue, a minister may respond unconsciously to the message, "I'm tired but I am supposed to be available to people." The automatic thought may include recognition of personal fatigue and the lateness of the call; however, a message of fundamental obligation juxtaposes it. It is often the latter message that is perceived as more compelling and, therefore, acted upon at the expense of the individual's well-being.

Aaron Beck (1976) proposed the existence of a cluster of automatic thoughts that compose the rational content of a *cognitive triad* associated with depression. The triad consists of negative perceptions in three major domains of experience: self, world, and future. The depressed person's view of self is dominated by ideas of unworthiness and incompetence. The world is viewed as threatening

and an often unrewarding place in which to live, work, and play. Lastly, the future is envisioned as bleak and unresponsive to the actions of one's willpower. These thought forms may combine to encumber the will of a person and result in a further cycle in deterioration of affect and adaptive behaviors.

The second major component in Beck's theory explains why an individual maintains self-defeating thoughts despite evidence that suggests the contrary is true. Because any experience consists of multiple stimuli, an individual selectively chooses to attend to specific facets of the event. This selectivity produces a pattern that becomes meaningful when affiliated with the experience. Persons then tend to bias future selectivity and meaningful decision based on a history of prior encounters. In effect, a cognitive loop is developed that explains phenomena and directs behavior. These systematic patterns are termed *schemas* and constitute a person's underlying cognitive structure (Beck, Rush, Shaw, & Emery, 1979). Utilizing the earlier example of the phone call, the minister may subscribe to the belief that failure to attend to the perceived need of another person may result in a reduced level of respect or acceptance. A particular environmental stimulus activates a specific schema that, in turn, functions to screen, evaluate, and code the stimulus for its perceived level of threat; differentiate response alternatives; and define the pertinent reinforcement, motivation, and behavioral response.

The cognitive theory of depression states that under duress, certain *dysfunctional attitudes* may be activated that skew an individual's perception of reality. This distortion of experience

potentiates the cognitive triad and further reduces the effectiveness of self-corrective coping skills. The more active the idiosyncratic schemas are, the less control the person has with which to recall and utilize more adaptive cognitive and emotional resources (Billings & Moos, 1985). This closed feedback loop, once established, is thought to produce heightened vulnerability to depression and the effects of the cognitive triad.

The third facet of Beck's theory elucidates the contribution that information processing makes towards a person's construction of reality. A distortion in perception activated by maladaptive schemas produces errors in thinking. These *faulty thinking styles* can sustain erroneous viewpoints even when evidence to the contrary exists (Meichenbaum, 1977). Beck (1967) described six faulty thinking or processing styles:

(1) Arbitrary inference is the process wherein one draws specific conclusions in the absence of evidence to support such findings.

(2) Selective abstraction results from focusing on a single aspect of an event taken out of context and often to the obviation of more salient and related features.

(3) Overgeneralization is the tendency of an individual to draw a rule or conclusion based on limited information.

(4) A magnification or minimization style reflects a propensity for over- or underexaggerating experiences in relation to other life events.

(5) Personalization is thinking wherein one perceives everything as pertaining to the value of self, even when no basis for such a conclusion is present.

(6) Absolutistic or dichotomous thinking consists of a response set that characterizes reality in terms of extremes (e.g., good or bad, all or none, for or against).

Fundamental change in a cognitive approach to the treatment of depression consists of altering faulty thinking styles so a person may more effectively process incoming information. This is accomplished in challenging the credibility of one's perceptions by behaviorally testing the logical outcomes of erroneous thought. This therapeutic approach elaborates the lack of validity in a negative construction pattern by providing contradictory evidence. An individual may, therefore, be more capable of making informed choices for coping. This process is thought to interrupt the cycle and maintenance of the cognitive triad (Persons, 1989).

In summary, the cognitive theory of depression as put forward by Aaron Beck (1967) is based on the idea that a person's early experience in life creates predispositions or consistent attitudes towards certain stimuli. These schemas form the cognitive structure that facilitates the ways a person perceives and constructs a response to environmental stimuli. A maladaptive schema or dysfunctional attitude exists when premature negative or exaggerated conclusions are drawn about an experience prior to objective evaluation of the challenge and one's resources to manage the stressor. The maladaptive schemas may precipitate a distortion

of experience through the activation of erroneous thinking styles. This may result in the persistence of negative views of one's self-worth, the world, and one's potential for a more creative future. The maintenance of this negative cognitive triad reduces a person's capacity to utilize self-affirming coping skills and will to alter one's circumstances, and increases the likelihood of depressed affect and isolation.

Mental Health and the Religious Professional

The relationship between religion and individual well-being has undergone significant examination within the last three decades. Results of research in the 1950s and 1960s by and large characterized religion as a functional ideation utilized by individuals who were described in the literature as more tense, anxious, conforming, rigid, and symptomatic when compared to a nonreligious cohort (Bergin, 1983). Even recently, Albert Ellis (1980), a noted advocate of a strict rational approach to problem solving, equated religious faith with emotional disturbance and portrayed the relationship between believer and belief system as based on faulty thinking. In a review of the literature, Bergin (1983) cited weak research designs, limited samples, and a lack of clearly defined constructs as factors contributing to negative findings in early studies. Incorporation of more sophisticated research methodologies utilized in recent years has failed to replicate the earlier and more critical findings (Bergin, Masters, & Richards, 1987; Bergin, Stinchfield, Gaskin, Masters & Sullivan, 1988; Masters, Bergin, Reynolds, & Sullivan, 1991; Trent, Keller, & Piotrowski, 1984).

Results of recent inquiries suggest religion to have no significant relationship with pathology (Bergin et al., 1988; Masters et al., 1991) and some positive influence in highly religious groups of students on morale and self-esteem (Trent et al., 1984). A cursory review of professional journals indicates a renewed interest in understanding the various aspects and functions of religious faith in the therapeutic process (Keating & Fretz, 1990; Miller, 1992; Thorson & Powell, 1989; Worthington, 1989).

Little is known, however, about the mental health of religion's practicing professionals. Generally, information that might represent their status either is not accounted for in denominational agencies or is protected because of legal and ethical concerns regarding confidentiality. Additionally, some religious organizations are protective of the public's perception of the role.

To acquire background data for this research study, 16 denominations representing a diverse expression of the Christian faith in the United States were surveyed by correspondence. Four questions were asked of denominational bureaucrats identified as key source persons in the area of pensions and major medical health benefits for ministers in their respective organizations. The data requested were to be aggregate and descriptive in nature. The principal investigator requested information illustrating the percentage of clergy utilizing mental health provisions in their medical health care plans, the financial impact of such services on the medical plan, and any differentiating patterns on usage (e.g., gender, ethnicity, age, or regionality).

Nine denominational representatives responded either by phone or the enclosed self-addressed envelope. All but two of the denominations cited the aforementioned reasons for not supplying data. One indicated there were no comprehensive data but that increases in outpatient mental health care costs resulted in implementation of a recent limit of $2,000 annually per member. The spokesperson from the other responding denomination described a significant increase in cost to its insurance carrier. This resulted in a change of inpatient treatment coverage to a maximum of $10,000 per year and $50,000 over a lifetime, down from the previous $1,000,000 lifetime and no annual maximum provisions. In any one year up to 1989, 2% of this denomination's clergy utilized membership mental health service options. In the years 1990 and 1991, these figures rose to 5% and 11%, respectively (A. A. Hanna, personal communication, March 26, 1992).

It is noteworthy that, though unable or unwilling to provide the requested background information for this study, five of the denominations indicated the value of such research and requested abstracts of the completed research. This dearth of information on a cohort of professionals traditionally viewed as important caregivers suggests the need to explore further the effects of their work for potentials of burnout, depression, and other forms of mental distress.

Writing on increased concerns regarding clergy health, Whittemore (1991) cited a Southern Baptist Convention report that, after maternity benefits, the largest portion of the $64.2 million paid

to pastors in medical claims during 1989 was for stress-related illness.

Recently, a consortia of 10 Protestant denominations, including the Presbyterian Church (U.S.A.), began pooling data on full-time active religious professionals. This network is seeking to describe the utilization and cost patterns associated with the denominations' major medical insurance plans. In its preliminary report, the Church Healthcare Network (CHN, 1991) found 75% of the 160,000 covered insured participants made claims on their respective policies. Fifty-six percent of all charges were incurred for outpatient treatment. The top three major diagnostic categories by rank were musculoskeletal system dysfunction, circulatory disorders, and mental illness/ substance abuse. Further, when the various plans' experiences are broken down into charges associated with inpatient and outpatient services, the mental illness/substance abuse diagnosis ranks second in both categories (CHN, 1991).

According to the CHN report (1991), admission rates and bed days per 1,000 clients dropped from 1989 to 1990 by 10% and 14%, respectively. Yet both remain higher than the national indemnity plan norms by approximately 6% and 17%, respectively. Additionally, the cost increase trend for the average amount of charges for each employee for the years 1989 and 1990 was 17%. Presbyterians realized an increase of approximately 8.5% in total claimant charges to their health plan over the same years (CHN, 1991).

The CHN preliminary findings conclude that the mental health/ substance abuse diagnosis represents a problem area for the plans' participants (CHN, 1991). This single diagnosis category accounted for 12% of the total charges to all plans. Norms established by the insurance industry set 5 admissions per 1,000 as a benchmark for this diagnosis. In 1990 the CHN utilization statistics reflected an admit rate of 13 per 1,000, an incidence 260% over what is expected (CHN, 1991).

The financial impact of emotional distress is of interest to the respective denominations as they seek to establish actuarial directions for the future. The preliminary report (CHN, 1991) established an average of $2,110 expended per claimant in the mental illness/substance abuse diagnostic categories. Total inpatient charges for this major diagnostic category were 12% of the total of all inpatient expenditures in 1990. Insurance industry standards suggest a problem exists when total charges in this diagnosis are greater than 10% of all costs incurred (CHN, 1991).

In a cross-denominational survey of 300 ministers in California, Blackmon (1988) found that 12% of the clergy sample reported "often" feeling depressed. Forty-five percent responded to feeling depressed "sometimes," while 43% indicated "rarely or never" feeling depressed. Blackmon further suggested the statistics may indicate ministers do not sufficiently comprehend depression to know how to respond. Hart (1984) proposed clergy often suffer from masked or hidden depression. He cited the likelihood ministers may experience physiological symptoms of depression associated with

letdown after preparations and presentations in their roles as public figures. Gaddy (1991), in an autobiographical portrait of his struggle with clinical depression, pointed out the importance of the public role and self-expectations of invulnerability to be significant barriers to self-disclosure and help seeking.

Much of the literature available regarding clergy and mental health is autobiographical and anecdotal in nature. The material may be as focused on assisting ministers in understanding the needs of parishoners or the idiosyncrasies of their employment as their own needs and suffering (Gaddy, 1991; Hart, 1984; Holden, Watts, & Brookshire, 1991; McCandless, 1991; Timmerman, 1988; Worthington, 1989).

In summary, the existence of empirical evidence regarding the mental health status, and more specifically depression, in clergy is very limited. Data that do exist suggest clergy may be utilizing mental health provisions in their pension and medical plans at an increasing rate over past years. In one cross-denominational study, the researcher concluded the incidence of diagnosis in mental health and substance abuse represents a significant problem area. Further, the limited incidence of depression reported is at least consistent with lifetime prevalence rates for the general population. Indeed, an inadequate understanding of depression or hesitance to self-disclose may account for rates being lower than actually present.

The lack of empirical evidence regarding the mental health of religious professionals, notably ministers, may also reflect an underlying image of a role that is deleterious to the well-being of its

practitioners. Clergy suffering from depression or other emotional disturbance may feel disinclined to utilize educational or therapeutic resources for fear of disenfranchisement by peers or loss of role credibility. Knowledge gained from this study may, therefore, be beneficial in helping to better understand the mental health of ministers and prolong the length and quality of their professional contribution. In addition, the elaboration of cognitive factors related to depression in clergy may encourage denominations to develop entry-level training and continuing-education events as early intervention strategies.

Need for the Study

Knowledge of the levels of cognitive schemas associated with symptoms of depression in a sample of Presbyterian ministers can provide additional evidence for validating Beck's cognitive theory of depression. Presbyterian clergy represent a population of professionals who by their ordination vows espouse a belief system that might appear to attenuate the development of maladaptive schemas. The denomination's theological emphasis on the worth of each individual apart from one's station in life or particular labor and the sovereignty of an ultimate creator is inconsistent with self-defacing or perfectionistic attitudes (Calvin, 1967; Wallace, 1959). Likewise, the Presbyterian focus on the sufficiency of God's grace and resourcefulness of humans in community to help one another appears to contradict attitudes that depreciate help seeking or aggrandize any one aspect of human life at the expense of the whole (Guthrie, 1968; Mead, 1990). The presence of dysfunctional attitudes

in any intensity may, therefore, reflect either an internal incongruity of beliefs or the cyclic effects of depression upon one's core belief system.

Information on the level and intensity of these cognitive factors in depression in Presbyterian clergy will help to determine the need to develop educational and therapeutic interventions designed to modify the onset or course of depression in this population. The absence of increased levels of dysfunctional attitudes present with significant levels of depression may, however, suggest additional directions for research in the cognitive theory of depression. Such investigation may examine more closely the effects of factors other than schemas (i.e., dysfunctional attitudes) in the cognitive paradigm (e.g., automatic thoughts and information processing levels).

Of additional value to the counseling profession is the knowledge derived from a study based on a professional population that shares many similarities in job function, level of education, and personal characteristics as counselors. The Dictionary of Occupational Titles (1991) classifies ministers as possessing similar levels of specialized education for vocation and command of language and mathematics as counselors, counseling psychologists, and social workers. Ministers also share with the above professions humanistic and artistic vocational descriptors. The findings of this comparative study may, therefore, suggest the appropriateness of continued research as a means of describing attitudes associated with depression and professional burnout in the counseling profession.

Lastly, results of the study may be useful to the Presbyterian denomination as it seeks to better understand the prevalence of depression within its trained leadership. Any differences based on moderating factors (e.g., race, gender, marital status, age, type of service, tenure in the profession) may illustrate the need for targeted interventions to assist specific populations. This information can also clarify the value of developing curricula for students in the course of their graduate, professional education and the provision of periodic assessment and in-career educational opportunities for clergy currently in service.

Purpose of the Study

The purpose of this study was to apply the cognitive theory of depression proposed by Aaron Beck (1967) in an investigation of depression in Presbyterian ministers. Specifically, this research was designed to ascertain through the use of the Dysfunctional Attitude Scale, a 40-item, self-report questionnaire developed by Weissman and Beck (1978), the presence and level of dysfunctional attitudes theorized to be associated with depression. Further, these attitudes were evaluated as predictors of the current level of symptoms associated with the syndrome of depression as measured by the Center for Epidemiological Studies--Depression Scale (CES-D), a 20-item, self-report assessment developed by the National Institute of Mental Health (Radloff, 1977).

In addition, this research was conceived to determine whether the levels of depression and dysfunctional attitudes in Presbyterian ministers occur at a rate similar to a cohort of comparably trained

professionals in a help-giving vocation, namely, mental health counselors.

Research Questions

Little empirical evidence is available to describe the levels of emotional distress in ministers. In this study, the researcher sought to contribute to this body of knowledge and explore the validity of a cognitive theory utilized to explain the presence of syndromal depression. To this end, the following research questions were posed:

1. What is the level of current symptoms associated with the syndrome of depression in Presbyterian clergy as measured by the CES-D?

2. How does the rate of depressive symptoms in the clergy sample compare to that of a sample of comparably trained help-giving professionals, specifically mental health counselors?

3. To what degree are the dysfunctional attitudes proposed by Beck's (1967) cognitive theory to be associated with depression present in Presbyterian ministers?

4. How does the level of dysfunctional attitudes found in Presbyterian ministers compare to that found in mental health counselors?

5. To what degree does the relationship between the level of dysfunctional attitudes elaborated by Weissman and Beck (1978) and depression differ between Presbyterian ministers and mental health counselors?

Definition of Terms

For the purpose of this study, key constructs and terms are defined as follows:

An attitude is a tendency to evaluate an experience (concrete or symbolic) in a specific way encompassing both an affective as well as a predisposed behavioral response (Katz & Statland, 1959; Lott, 1973).

A cognitive theory of depression is a conceptual explanation of depression based on the role cognition plays in the activation and maintenance of a mood disturbance. The following constructs are utilized to explicate the various dimensions of the theory.

1. Cognitive events are the automatic thoughts associated with the encounter of an environmental stimulus. They comprise initial impressions formed around concerns for the self-competency to cope, the environment as a resource to problem solving, and the potential of future well-being.

2. Faulty thinking styles are products of distortions in screening and processing information. Utilization of these styles tend to strengthen and reinforce erroneous viewpoints about a particular stimulus though evidence to the contrary may exist.

3. Schemas represent fundamental values and biases that are construed from past experiences. These schemas become patterns for assessing one's experience with various stimuli and thereby activate specific automatic thoughts and thinking styles in problem solving.

4. A dysfunctional attitude is a negative distortion of seven basic values hypothesized to be related to one's self-worth. These negative schemas relate to the human needs for approval, love, achievement, perfectionism, entitlement, omnipotence, and autonomy (Weissman & Beck, 1978).

Depression is the presence of a mood disturbance associated with the constellation of symptoms established by the Diagnostic and Statistical Manual of Disorders (Third Edition, Revised) (American Psychiatric Association, 1987) and, for the purposes of this research, a total score of 17 or more on the Center for Epidemiological Studies--Depression Scale.

A major depressive episode is a psychological disorder characterized by feelings of sadness and loss of general interest. These two symptoms must exist over a duration of at least 2 weeks and include the addition of at least three of the following on a daily basis: (a) significant and unexplained weight loss or gain, or decrease in appetite, (b) either the inability to sleep, sleep disturbance, or engaging in excessive sleep, (c) agitation or retardation of mental and/or motor functions that can be observed by others, (d) a sense of energy loss or fatigue, (e) a feeling of not being worthy or excessive guilt, (f) a diminished capacity to concentrate and make decisions, and (g) recurrent thoughts of death, suicidal ideation with or without a plan, or an attempt. These symptoms must occur in the absence of any organic explanation or nonmood congruent hallucinations or diagnosis of thought or delusional disorder (based on the DSM IIIR by the American Psychiatric Association, 1987).

Marital status is the concept used to designate a person's living status by the following categories: (a) single--never married, (b) married, (c) separated or divorced, (d) widow/er, or (e) other.

A mental health counselor, for purposes of this study, is defined as a person holding membership (i.e., other than student status) in the American Mental Health Counselors Association (AMHCA), a division of the American Association of Counseling and Development.

The Presbyterian Church (U.S.A.) is a member of the Reformed theological tradition. The denomination is a product of the union of the former Presbyterian Church in the United States and United Presbyterian Church in the U.S.A. denominations in 1983. Denominational offices are located in Louisville, Kentucky.

Racial and ethnic status is the determination of race or ethnic status based on self-report in one of the following categories: (a) Asian/Pacific Islander, (b) African-American, (c) Hispanic, (d) Native American, (e) White (not of Latin origin), or (f) Other.

Spirituality describes the belief in a force or entity that is perceived to be of greater stature and power than the individual. Belief in this ideal compels the individual to search for a purpose and meaning in life (Wittmer, 1989).

Tenure of service is the duration of service in the ministerial profession since date of ordination into one's denomination of origin. For mental health counselors, tenure is determined by length of membership in the American Mental Health Counselors Association (AMHCA).

The type of service is the classification of a minister's employment function by one of the following categories: (a) parish- or congregational-based or (b) specialized/institutional. Type of service for mental health counselors is determined by inclusion in one of the following categories: (a) counselor (direct services) or (b) administrator/supervisor.

Limitations of the Study

The limitations of this study are bounded in its focus on a specific group of ministers, those serving in the Presbyterian Church (U.S.A.) denomination, the acquisition of a comparative sample of mental health counselors belonging to the American Mental Health Counselors Association, selection of a particular theory to explicate the mental disorder of depression, the instruments utilized to assess the current levels of depression and dysfunctional attitudes, and the procedures incorporated to interpret the underlying statistical relationships.

The goal of this study was to acquire a nationwide random sample of ministers in active service to the Presbyterian Church (U.S.A.). Adequate representation of key moderating variables (e.g., gender, tenure and type of service, marital status, and racial/ethnic identity) was sought. Efforts were made to secure subjects in as unbiased a fashion as possible to avoid contamination of the sample. Similar rigor was applied in acquiring an equivalent sample of mental health counselors for comparative study.

The design of this study took into consideration the goal of maintaining, as far as possible, the value of construct validity.

Therefore, instruments and questionnaires incorporated to assess the presence and level of depression and dysfunctional attitudes were selected for their psychometric properties. Interpretation of the statistical relationships were based on procedures that address concerns for the management of error in various formats.

Finally, a number of theories exist that seek to explain and measure the causation and symptom history of depression from differing perspectives (e.g., genetic, hormonal, neurological, behavioral, psychological, cognitive, and psychobiological) (Marsella et al., 1987). Each of these approaches is supported by theoretical and research evidence. The focus of this study, however, was a cognitive theory proposed by Aaron Beck (1967). The constructs of this theory were used to conceptualize those factors that may explain the presence of syndromal depression and relationships existing between cognitive factors and current state of depression as moderated by several demographic and vocational variables.

Summary

This chapter presents a rationale for a study of depression in Presbyterian ministers and mental health counselors. The need for this research has been grounded in empirical data that give evidence to rising rates of mental distress in our society. Depression is reported as one of the leading major diagnostic categories producing significant losses in personal and economic productivity.

The results of current research describe the vulnerability of helping professionals to job-related burnout and emotional

distress. Along with psychologists, mental health counselors, social workers, and psychotherapists, clergy are susceptible to similar impairments. While ministers are, in general, acknowledged and valued as caregivers by society, little empirical evidence exists to describe the state and complexities of their mental health. Trend analysis of major medical insurance plans employed by ministers in 1990 and 1991, however, indicate increased rates of help-seeking behavior on the part of clergy. Interventions for mental health and substance abuse problems for ministers have been reported at rates higher than the general population. A next logical step, therefore, was to undertake an empirical study of this professional cohort to describe the current levels of symptoms associated with the syndrome of depression. Comparison of these findings with a sample of similarly trained helping professionals (i.e., mental health counselors) assisted in determining the significance of the findings.

Finally, Presbyterian ministers subscribe to a set of theological tenets that may attenuate the influence of cognitive factors affecting the onset and maintenance of depression. It was hypothesized that the strain associated with fulfilling often ambiguously defined professional demands may compromise these palliative beliefs. If this is the case, according to Beck's cognitive theory, increased rates of dysfunctional attitudes associated with depression could be expected. The next logical step was to undertake an examination of the prevalence of these cognitive factors in Presbyterian clergy. The additional investigation of the

comparative prevalence of these attitudes in mental health counselors can also contribute to the existing body of knowledge associated with this helping profession.

CHAPTER II
RELATED LITERATURE

Chapter Organization

The purpose of this chapter is to review literature pertinent to a study of cognitive factors related to depression in a comparative sample of two groups of helping professionals, Presbyterian ministers and mental health counselors. This component of the study includes discussion of the following topics related to the research: (a) a definition and epidemiological description of the disorder depression, (b) the criteria for the diagnosis of syndromal, unipolar depression, (c) a conceptualization of Beck's cognitive theory of depression, (d) research in the structural model of the cognitive theory, (e) empirical research in the cognitive theory of depression with emphasis on dysfunctional attitudes, (f) knowledge about the mental health of ministers, (g) idiosyncratic beliefs in Presbyterian ministers which may attenuate the onset or maintenance of depression, and (h) a rationale for the selection of mental health counselors as a comparison study group.

Depression

A Definition and Conceptualization of Depression

Melancholia has long attracted the attention of those who study the human condition. Such diverse fields as theology, philosophy, psychology, literature, the fine arts, medicine, and the life sciences in

varied ways have studied or depicted the affects of depression on the human. Reus (1988) went so far as to suggest the history of medical psychology itself can be characterized in terms similar to the evolution of the conceptualization, diagnosis, and treatment of depression.

Adolph Meyer has been attributed the distinction of being one of the earliest persons to use the term depression as a diagnostic label, circa 1906 (Kline, 1976). Meyer's terminology was used to describe an emotional condition typified by a dysphoric or suppressed mood. Previously characterized as melancholia and later as a disturbance in affect, depression is currently classified as a disorder of mood with the degree of severity based on the specificity and period of symptom experience (American Psychiatric Association, 1987). More commonly, depression can be understood as a mood (i.e., feelings associated with loss or disappointment), a symptom of coexisting physical or psychological disturbance, or in its more chronic form as a disorder (Klerman, 1987)

Depression is conceptualized in a variety of ways by a number of disciplines which have explored its origins, effects, and relevant therapeutic interventions. Included in these fields of inquiry are genetics, neurological biology, neuroendocrinology, pharmacology, virtually all schools of thought in psychology, and in cross-generational and psychosocial paradigms (Marsella et al., 1987; O'Neil, 1984; Reus, 1988; Tsuang & Faraone, 1990; Willner, 1985).

For purposes of this study, depression was determined through a multiaxial approach which incorporates signs and symptoms

commonly related to depression. The symptoms comprising the syndromal constellation include a pervasive affective distress, physiologic disturbance, disruption of normal psychomotor function, and psychological distress (Zung, 1984). An additional purpose of this study was to determine the prevalence and contribution of cognitive features in depression. For Aaron Beck (1974) the development of a coherent cognitive theory explaining depression was contingent upon identifying a sequence to the various aspects of the syndrome. Beck's cognitive theory does not abrogate the presence of cofactors in depression such as neuroendocrine levels, life strain, and genetic predisposition. He did, however, advocate cognitive features as primary among equals in the cycle of depression. In other words, a comprehensive understanding of depression and its effective resolution must include consideration of cognitive processes in its origin and maintenance.

Criteria by which to determine the presence and level of depression for this research has been established by subjective reporting of the severity and duration of depressive symptoms. Assessment was accomplished through a self-report instrument with demonstrable reliability and validity in the measure of the syndrome, unipolar depression. Diagnostic criteria, established by the American Psychiatric Association (1987), include the presence of five of the following symptoms in the same 2-week period and prevalent on a daily basis: (a) depressed mood, (b) marked decreased interest in pleasurable activities, (c) significant loss or gain in weight not attributable to dieting that represents more than 5% of

body weight in a 1-month period, (d) a lack of or overindulgence in sleep, (e) fatigue or persistent energy loss, (f) feelings of excessive or inappropriate guilt, (g) decreased capacity for concentration and decision making, or (h) repetitive thoughts about death which may include suicidal ideation, an attempt, or development of a specific plan to take one's life. Either depressed mood or loss of interest in pleasurable activities is required as one of the five key symptoms.

While other facets of depression may be present in varying degrees (e.g., neurological and endocrinological functions, genetic predisposition, familial dynamics), it was the subjective impression of experience which was utilized in this study. Specifically, this research was conducted to determine the level and prevalence of self-reported depression within the comparative samples and the contribution dysfunctional attitudes makes to these levels.

Epidemiology and Factors Associated with Prevalence of Depression

Depression is considered a mental health problem worldwide in scope. The World Health Organization estimates that globally some 100 million persons suffer from a depressive disorder (Marsella et al., 1987). Although widely diagnosed and treated, it remains difficult to establish exact assessments of prevalence and incidence rates. Variances in epidemiological data are attributed to differences in conceptualization of the disorder (i.e., mood, symptom, or disorder), the criteria for diagnosis, and measurement and reporting procedures. Additionally, many reports are based on evaluations of individuals who do not seek therapy and whose conditions are not scrutinized by professional standards (Reus, 1988).

Although exactness in prevalence and incidence data is arguable, the evidence of depression in the United States is indicative of its magnitude as a health concern. The National Institute of Mental Health (1991) has estimated 5.2% of the 28.9 million persons suffering from a mental disorder during a 1-month period were depressive in nature. On average, 8.3% of the adult population over the age of 18 are expected to experience symptoms of depression during their lifetime (NIMH, 1991; see also Myers et al., 1984). Utilizing more clinically stringent diagnostic criteria, Reus (1987) estimated the prevalence rate for women from 4% to 9% and men at 3%.

In a study of persons under care in specialty mental health inpatient, outpatient, and partial care programs, depression represented 22% of all diagnosis and 14% of all admissions (National Institute of Mental Health, 1990). Yet, the number of persons who seek help for depression may reflect only 10% to 25% of those in need (O'Neil, 1984). About 12% to 20% of the population experiencing an episode of depression go on to develop chronic depressive syndrome, with approximately 15% of those persons suffering depression for more than a month committing suicide (Reus, 1988).

Outcome studies on depression suggest a significant comorbidity with other ailments. A diagnosis of any psychiatric disorder was related to an increased risk for some type of medical illness (Hall et al., 1980). In a 12-month outcome study of patients with major depressive disorder, up to one-half of the inpatients also

presented with symptoms of a coexistent, nonaffective psychiatric or medical illness (Keitner et al., 1991). This compound depression appears to be a common occurrence in inpatient treatment settings and complicates the course of illness. The recovery rates of persons with compound depression were found to be lower over 12 months (Keitner et al., 1991).

Lewinsohn, Zeiss, and Duncan (1989) studied the probability of relapse after recovery from an episode of unipolar depression. Of the 1,078 subjects under study, 45% experienced a second episode with 33% reporting a third bout. The recurrence rates proved higher for women. However, men reporting a second episode proved as vulnerable to a third as did their female counterparts. From the results of the study, researchers determined that for the majority the onset of a first episode occurred on or right before the 40th year of life with earlier onset proving to be more severe. Age at onset, however, did not prove a predictor for relapse. The survival time between episodes was found to decrease with the frequency of occurrences.

The results of long-term studies involving follow up of 2 to 5 years are no more optimistic. Keller, Klerman, Lavori, Coryell, Endicott, and Taylor (1984) reported 21% of the subjects demonstrated minimal recovery after 2 years. Of those not recovering, most experienced severe depression throughout the 2-year follow up. Coryell's (1990) findings over a 5-year period were similar. Seventy-five percent of the subjects reported recovery for at least 8 months, but only 33% remained well for 6 months

thereafter. Twenty-five percent of the subjects experienced no recovery over the 5-year study. Factors determined to influence a no recovery status include the coexistence of severe illness, a history of nonaffective, psychiatric illness, low family income, inpatient status, and the presence of psychiatric features (Coryell, 1990; Keller et al., 1984).

In summary, both anecdotal and empirical data describe depression as a significant and growing mental disorder in the United States. According to Reus (1988), it is possible to distinguish a pattern of increasing rates of depression over successive generations throughout this century. Furthermore, a progressively earlier age of onset also contributes to increased severity in the disorder. Marsella et al. (1987) predict the incidence of mood disorders may continue to increase as life expectancy is prolonged and the expansion of chronic illnesses associated with depression occurs. The utilization of medications which have depression as a potential side effect can also be expected to contribute to greater reporting of the disorder. Finally, as society undergoes changes in its economic and socio/ political structures, excessive demands for coping and adaptivity may result in more depression over the lifespan.

The diagnosis and treatment of depression poses a significant challenge to help givers. If as some authors suggest (e.g., Marsella et al., 1987; O'Neil, 1984; Reus, 1988) the majority of clinically depressed persons fail to seek or receive needed help, a logical next step is to seek more knowledge regarding these factors. This study was conducted to describe attitudes that influence the onset and

maintenance of depression and contribute to the potential therapeutic and educational gains from such knowledge.

A Conceptualization of Beck's Cognitive Theory of Depression

Since its introduction, Beck's (1963) cognitive theory of depression has been studied extensively (e.g., Beck, 1964, Beck, Rush, Shaw,& Emery, 1979; Meichenbaum, 1977; Persons, 1989). Beck's theory incorporates cognitive appraisal and the contributions of information processing into a comprehensive explanation of individual adaptation and change. Subsequent developments in the theory by Beck and others have expanded the application of cognitive approaches to fields other than mood disorders. Although not exhaustive, a survey from recently published handbooks on cognitive therapy (Dobson, 1988; Freeman, Pretzer, Fleming, & Simon, 1990; Freeman, Simon, Beutler, & Arkowitz, 1989) included treatments on the following topics: (a) cognitive assessment, (b) combined cognitive therapy and pharmacotherapy strategies, (c) restructuring cognitions in conjunction with stress reduction approaches, (d) treatment of personality disorders, (e) the assessment of suicidal ideation and lethality, (f) cognitive therapy for anxiety and eating disorders, as well as (g) cognitive approaches for the treatment of sexual dysfunction, control of chronic pain, problems associated with the elderly, family systems, and women's issues.

Such a wide array of applications suggests the popularity of cognitive theory as a fundamental approach to conceptualizing the origin of human problems and change processes. Proponents of the

theory cite its flexibility in considering the multiple factors which impinge on an individual's capacity for problem solving and coping (e.g., environmental, genetic, learning, social).

Developmental Models of the Cognitive Theory

Research in the cognitive theory of depression has stemmed out across several emerging models. Beck (1987) described the six major models as the cross-sectional, structural, stressor-vulnerability, reciprocal-interaction, psychobiological, and evolutionary paradigms. Each is considered distinctive yet shares various aspects of conceptual framework and symbols with the others. This research study utilizes one of the six approaches, namely, the structural model. The following overview of the models affords a basis for comparison and, more specifically, a rationale for the selection of the structural model as the theoretical framework for this research.

The cross-sectional model. The cross-sectional model asserts a constellation of affective, cognitive, and behavioral experiences are related in a way which constitutes a pattern of emotional response. This model was initially proposed by Beck (1967) as a means of explaining the presence of automatic negative thought constructs and an emergent pessimistic view of self, experience, and future in depressed persons. From his observations Beck constructed the idea that a logical sequence of negatively biased thinking accounted for the deepening intensity of cognitive and emotional despair.

This model also proposes that a person's processing of stimuli becomes biased by faulty thinking styles which thereby result in the

preselection of negative events which reinforce depressogenic interpretations (Beck et al., 1979). Dysfunctional information processing is characterized by several styles. These styles are described as follows, each with an accompanying example: (a) the selective abstraction of content and experience (e.g., the minister paid attention to everyone else), (b) a stereotypical interpretation of the event (e.g., she must think they deserve more attention than me), (c) one's thinking in polemic and judgmental terms (e.g., the minister doesn't like me), (d) the overpersonalization of experience (e.g., she must think I'm unattractive), (e) a gross generalization of the consequences of an event (e.g., if I'm that unlikeable, no one likes me), and (f) the creation of a negative prediction of the future based on low self-worth and effectiveness (e.g., there's likely nothing I can do to ever make me more attractive to others). The cross-sectional model advocates that it is these errors in logic which consistently shore up themes of loss and despair and result in the prevalence of the cognitive triad in depressed persons.

The structural model. The structural model of cognitive theory describes a continuum or axis of depression on which particularly powerful, underlying beliefs or enduring rules of behavior influence the processing and interpretation of environmental stimuli. Beck (1963) identified these constructs as depressive schemas. He suggested these idiosyncratic schemas influence the activation of thought-content bias and illogical information processing. Karasu (1990) depicted these schemas as structures which are comprised of "silent assumptions rigidly held, nonverbal, covert and axiomatic."

Krantz's (1985) definition of schema shifted emphasis to the resistance of schemas to change even when life circumstances dictate otherwise. He viewed schemas as predisposing attitudes or basic rules which are relatively independent of life's circumstances.

According to the structural model, dysfunctional or predisposing attitudes are conditional in nature, activated only in the presence of relative circumstances. Zuroff and Mongrain (1987) described this relationship between attitude and stimulus as a principle of specificity. For example, the absence of collegial support in a conflict situation may activate the basic rule, "If unliked, I am unworthy." As the continuum of depression is described, it is this schema which when prompted by circumstances influences the dysfunctional processing of further information. Even information which might counter the initial perspective is selectively screened, thereby shading reality in more foreboding tones. Dysfunctional attitudes are viewed as dormant, therefore, until such time as stressors perceived as loss or failure precipitate their articulation.

Beck (1983) suggested differences in personality may account for the types of stressors that potentiate relevant schemas. A sociotropic person, one who places value in the quality of interpersonal relationships and measures self-worth based on the acceptance, praise and affection of others, is likely to be affected by events whose themes include interpersonal conflict, loss of attractiveness, and distrust. In comparison, the autonomous individual places a high premium on independence, self-determination, task oriented-success, and status. Stressors

associated with loss of freedom in decision making, change in reward systems, threat to physical mobility, or status may prime depressogenic schemas.

Whether sociotropy or autonomy are best conceptualized as discriminant types or as a continuum of preferences is arguable. Results of several studies indicate substantial percentages of persons diagnosed as depressed do not fall into the differentiated types but are classified as mixed in their personality profiles (Goldberg, Segal, Vella & Shaw, 1989; Hammen, Ellicott, & Gitlin, 1989).

In summary, the structural model elaborates the primary continuum of depression with idiosyncratic schemas, or dysfunctional attitudes, serving as the foundation. When these enduring beliefs are negative in content, they predispose an individual to stressors which reinforce their negative belief system. Further, these schemas result in a negatively biased processing of incoming stimuli from the environment resulting in more critical views of self, experience, and future. The model also postulates a continuum in personality types between sociotropic and autonomous persons which may account for the types of stressors which activate dysfunctional schemas.

The stressor-vulnerability model. The stressor-vulnerability model focuses on the specific experiences which potentiate a person's vulnerabilities. The identification of which stimuli precipitate depressive responses must take into account the distinctive social and psychological conditions which shape a person's underlying belief systems. For example, understanding a threat to a person's sense of fulfillment requires some knowledge of the history of

pertinent support and reward systems. The schema, "If I fail, I am unworthy," becomes salient only in the presence of stressors which are historically relevant to the individual. According to Beck (1987), some individuals appear more vulnerable to depression because underlying depressogenic attitudes are the product of longstanding and intense exposure to relevant stressors. This may explain the chronic dysthymia, persistent self-negation, and destructive behaviors attributed to adults victimized by physical, sexual, and emotional abuse (Beck et al., 1979).

The stressor-vulnerabiliity model also advocates for the importance of identifying distinctions between persons depressed with identifiable stressor content (i.e., exogenous or reactive type) and those persons lacking any definitive sources of stress. Beck (1987) noted the possibility existed that biochemical deficiencies may be a causative factor in what is traditionally viewed as indogenous depression. However, the stressor-vulnerability model does not rule out a possible explanation that persons psychologically predisposed to depression may, as a result of cognitive deficiencies and faulty thinking styles, become more vulnerable to various biological variables.

The reciprocal-interaction model. The reciprocal-interaction model, addresses the effects which significant others play in the way a person maintains a negative loop of perception and depression behaviors. This is a systemic approach to conceptualizing how the overt and covert behaviors of others is requisitioned into the cognitive triad (i.e., a pessimistic view of self, past and present

experience, and control of future) which is symptomatic of the depressed person. In describing the application of cognitive therapy within the group system context, Wessler and Hanklin-Wessler (1989) liken the client's construction of reality to the mind of the artist. The artist perceives the objective and creates a unique construction of what is assumed real in his or her mind. This model seeks to clarify the interpretation of messages (i.e., the artists sense of reality) and examine the effects of feedback from other persons in the social system on altering or sustaining conditions which support one's construct of reality.

Epstein and Baucom (1989) characterized the importance of idiosyncratic interpretations and attributions in a marital system as one of the two basic reasons cognitive theory is becoming popular in couple's therapy. Spousal interpretations based on either distorted or invalid perceptions are considered amongst the chief causes of dysfunctional behavioral in marital systems. The restructuring of these cognitions and their reciprocal responses on the part of each member in the system is fundamental in balancing and maintaining a regulated, therapeutic change.

The psychobiological model. The psychobiological model of the cognitive theory of depression represents an effort to synthesize the study of the cognitive and biological dimensions in depression. Approaches to understanding depression as either solely a product of cognitive distortions or biochemical imbalances have increasingly given way to more collaborative models.

Beck (1987) characterized these multidimensional inquiries into the etiology of depression as merely viewing the same problem from different sides. Wright and Schrodt (1989), however, attributed the increase of cooperative theoretical and therapeutic efforts to understand depression to scientific, economic, and market-driven factors. They also noted that findings of research suggest depression and other disorders are likely best understood as a collection of psychological and biological functioning which interact to create symptomatic patterns. Wright and Schrodt (1989) cited the works of several authors which support a combined therapeutic approach based on this model (see Akiskal & McKinney, 1975; Beck, 1985; Wright, 1987).

The evolutionary model. The last of the models may best be understood as a species evolutionary approach to conceptualizing depression. Accordingly, symptoms of depression are viewed as a contradiction of drives in the human species, the impulses to acquire pleasure, procreate, derive nourishment, and thrive. Beck (1987) suggested depression may be a systematic slowdown related to a biological conservation of resources during unusually stressful periods.

Experiences related to the human need for bonding and status affect perceptions along pathways which may be either supportive or disruptive. In disruptive circumstances, an individual may feel threatened by rejection or loss of importance to others and, therefore, alter cognitive appraisal and risk-taking behaviors. It is possible that this temporary withdrawal is necessary to protect the

person from the potential of further harm. If withdrawal persists, that is the individual begins to fail in fulfilling the social contract, then the reciprocity of getting needed resources from the social milieu is threatened and the cycle of depression becomes chronic. Beck (1987) further suggested the symptoms of futility, anhedonia, and fatigue in depressed persons may be grounded in exaggerated or distorted expectations of anticipated rewards and social support.

In summary, this discussion outlined six models utilized to operationalize research in Beck's cognitive theory of depression. They represent separate but overlapping descriptions of the onset and maintenance of the disorder. The contribution of maladaptive schemas as an aspect of the structural model is of particular relevance to this research. While not singularly causitive of depression, these underlying beliefs are associated with depression. An important question to this study is, therefore, the effect of these attitudes on persons who by virtue of their profession ascribe to a systematic belief system whose beliefs are counterposed to the maladaptive schemas described by Beck and other researchers.

Research in the Structural Model and Contributions of Dysfunctional Attitudes in Depression

The purpose of this research is to apply Beck's cognitive theory of depression in an investigation of depression in Presbyterian clergy. An aspect of this inquiry is the contribution dysfunctional attitudes make in a concurrent measure of depression. The structural model of Beck's theory asserts that these strong underlying beliefs or rules for behavior influence the processing of

information and are rigid and resilient to changing life circumstances (Krantz, 1985). Further, they have been shown to be associated with negative information processing and depression (Weissman & Beck, 1978).

The structural model also proposes that depressogenic attitudes are activated when their conditional attributes are met. For example, the schema, "I need to be loved," is confounded when persons who are subjects of mutual affection engage in conflict. Faced with a prospect of being found unacceptable, the person holding such a schema may produce distorted cognitions confirming the depressogenic attitude. Beck et al. (1979) asserted this triggering event resulted in the deterioration of logic and information processing and biased the individual toward unfavorable interpretation of their circumstances.

Haaga, Dyck, and Ernst (1991) in a meta-analysis of research in the cognitive theory of depression created a distinction between the descriptive and causal features of depression. Descriptive features include the cognitive aspects of depression commonly found across research populations of depressed persons. These features are characterized by automatic thoughts which are manifested in a pattern of negative construction in one's perception of self, past and present experience, and control of the future. Beck (1963) termed this constellation the cognitive triad of depression. Hypotheses tested in studies of descriptive features of cognitive theory include, among others, the presence and levels of negative thinking, components and contributions of the cognitive triad, biased thinking

processes (e.g., encoding, recognition, and recall), and hopelessness and suicidality (Haaga et al., 1991).

Cognitive schemas are conceptualized by Haaga et al. (1991) as causal features of depression. The use of the term causal in this study is restricted to explicating the linkage between schemas and the logical sequence of processes resulting in depression. Depressogenic attitudes are viewed, therefore, as a precipitative factor in the cognitive symptoms associated with depression.

Perris (1989) emphasized the importance of schemas as cognitive organizations which are grounded in prior experience. These perceptual patterns serve to frame a person's future encounter in similar situations. The schemas may facilitate efficient approaches to repeated or novel stressors. These beliefs, however, have the negative effect of exaggerating the severity and threat of a current stimulus based on recall which has become unfavorably biased over time. Dysfunctional schemas, then, when activated by content consistent circumstances, fuel the sequence of cognitive processes which are associated with depression.

Much of the current trend of research in the structural model is to establish dysfunctional attitudes as a causitive agent or linkage agent in the developmental sequence of depression. The nature of depressogenic attitudes as covert beliefs, however, presents problems in measuring the presence and level of the attitudes prior to the onset of depression. In their review Haaga et al. (1991) found little evidence to support the notion that schemas are causitive agents in depression. Nevertheless, they indicated such a hypothesis

cannot be ruled out until more sophisticated design methodologies are employed which utilize prodomal priming of attitudes, longitudinal study with interval measures, and consideration of personality factors and stress variables.

It was not the purpose of this study to test the causality thesis. The focus of this research was to assess the contribution which schemas make to a concurrent measure of depression in comparative populations. Further, this study is designed to acquire knowledge about a professional cohort heretofore little studied from the perspective of cognitive theory. Little is known about the interaction of ideational-based belief systems and depressive attitudes. Presbyterian ministers represent a population of persons who espouse an overt belief system which may mitigate the influence of dysfunctional beliefs identified by Weissman and Beck (1978). The results of this study may clarify whether their belief system is a benefit in moderating the association of dysfunctional attitudes and depression.

Dysfuntional attitudes and depression. Dysfunctional attitudes have been related to current measures of depression in a number of studies (Bowers, 1990; Eaves et al., 1984; Levine & Wetzel, 1986; Peselow, Robins, Block, Barouche, & Fieve, 1990; Power, 1988; Weissman & Beck, 1978; Wierzbicki & Rexford, 1989). Simons, Murphy, Levine, and Wetzel (1986) in a 12-week study comparing cognitive therapy and pharmacotherapy for depression established high dysfunctional attitude scores were related to depression. Weissman and Beck (1978) also determined a relationship existed

between depression and dysfunctional attitudes in their study of college students. In a study of symptomatic and remitted unipolar major depression subtypes, Eaves and Rush (1984) found higher scores on the Dysfunctional Attitude Scale (DAS) among symptomatic depressed persons than the nondepressed group. Similar results were found in a study comparing symptomatically depressed, clinically remitted, and normal controls (Dohr & Rush, 1989).

Results of a study of dysfunctional attitudes in depressed patients before and following clinical treatment compared to normal controls established depressed subjects as having higher initial DAS scores than the normal control group (Peselow et al., 1990). Findings in the study also established the tendency of measures of dysfunctional attitudes to diminish over the course of treatment. Posttreatment scores on the DAS of symptomatic subjects compared favorably with the controls. Miller, Norman, and Keitner (1991), assessing the effectiveness of cognitive therapy with depressed inpatients, also described a decrease in DAS scores over the course of treatment.

In a 4-month longitudinal study, Power (1988) determined the measure of dysfunctional attitudes correlated with depression symptoms at both the pre- and postmeasures. The DAS scores, however, were not significantly related to depression at the postmeasure when symptoms at the first measure were controlled for. Power concluded that while dysfunctional attitudes may be a marker for a possible episode of depression or anxiety, they could not be construed as primary causes.

Stability of dysfunctional attitudes. The results of several studies have asserted the stability of measured levels of maladaptive schemas, that is, the consistency of mean individual mean scores, when compared to self-reported symptoms of depression (Dobson & Shaw, 1986; Oliver & Baumgart, 1985; Weissman, 1980; Weissman & Beck, 1978). Dobson and Shaw (1986) found the scores of the DAS stable for 60 days, and Keller (1983) observed subjects high in DAS scores at outset remained relatively so at follow-up. Hamilton and Abramson (1983) recommended that future studies which consider the significance of attitudes as causal agents must develop variables to account for the stability of the DAS scores (e.g., mood state, therapeutic interventions, environment in which study is undertaken, and intervals of measures).

The sensitivity of the DAS to changes in dysfunctional schemas has been observed in a number of studies (Bowers, 1990; Eaves et al., 1984; Power, 1988; Reda, Carpiniello, Sechiaroli, & Blanco, 1985). Longitudinal studies of 12 weeks and 4 months by Simon et al. (1984) and Power (1988), respectively, established a decreasing trend in DAS scores. In the Simon et al. study (1984), the DAS outcomes and other measures decreased in both cognitive and pharmacotherapy groups. This trend in DAS scores was also found in a study utilizing pharmacotherapy by Reda et al. (1985). In a comparison study of subjects receiving cognitive therapy with medication, relaxation with medication, and medication only treatment modalities, Bowers (1990) observed scores on the DAS decreased over the course of the interventions.

Several studies have also determined the DAS to be sensitive to decreases in the level of dysfunctional schemas following the remission of symptoms (Dohr & Rush, 1989; Eaves et al., 1984; Silverman, Silverman, & Eardley, 1984). This propensity for DAS scores to diminish over the course of treatment has led some researchers to challenge Beck's original idea that schemas are enduring trait like structures (Hamilton & Abramson, 1983; Miranda & Persons, 1988). Miranda, Persons, and Byers (1990) concluded from a study on the endorsement of dysfunctional beliefs that while these attitudes were markers for vulnerability to depression, they exhibited a dependency on mood state. Yet, other researchers described the change in scores over time as evidence that dysfunctional attitudes are activated and measured only during the period of florid symptoms (MacDonald, Kuiper, & Olinger, 1985; Reda et al., 1985).

Dysfunctional attitudes, negative life experience and stress. The study of an interactive relationship between dysfunctional attitudes and negative life experiences with depression is relatively new. Wise and Barnes (1986) determined a significant interaction between dysfunctional attitudes, negative life experience, and depression existed in a sample of normal college students. A clinical sample in the same study reflected both the scores on the DAS and negative life stress exerted independent effect on mood. In a similar study of undergraduate students, Barnett and Gotlib (1988a) found dysfunctional attitudes moderated the relationship between stress and mild symptoms of depression. Results of a study by Robins and

Block (1989) also determined a relationship existed between scores on the DAS, perceived stress of events, and depression.

Kuiper, Olinger, and Swallow (1987) hypothesized that an increase in anxiety would result from increased levels of stress associated with public self-consciousness and lead to the increased potentiation of dysfunctional attitudes. Subsequent research confirmed increased scores on the DAS were correlated in vulnerable individuals with relevant life events (Olinger, Kuiper, & Shaw, 1987). In a study of clinical and nonclinical populations, Wierzbicki and Rexford (1989) established a correlation between depressogenic attitudes, frequency of pleasant activities, and level of depression. Barnett and Gotlib (1990) described a combination of high levels of dysfunctional attitudes and concurrent low social support in a sample of women to be related to depressed mood.

Suicidality. Dysfunctional attitudes have also been studied as a factor in suicidal ideation. Ellis and Ratliff (1986) studied the cognitive characteristics of suicidal and nonsuicidal persons in a psychiatric inpatient placement setting. Scores on the DAS were found to be one of the highest contributions discriminating between the two populations. The level of dysfunctional attitudes were higher on suicidal patients with attitudes embracing perfectionism, approval, achievement, and entitlement.

A comparable study of psychiatric patients was undertaken by Ranieri, Steer, Lawrence, Rissmiller, and Piper (1987). Levels of dysfunctional attitudes contributed, along with degree of depression, unique discriminant variance. Six attitudes representing

perfectionism and sensitivity to social criticism on the DAS explained 77% of the variance considered in assessing suicidal risk. The results of the study were similar for both inpatient and outpatient samples.

Dysfunctional attitudes and eating disorders. Cognitive theory has also been applied to conceptualizing factors associated with eating disorders, a disorder often associated with varying degrees of depression. Results of research by Goebel, Spalthoff, Schulze, and Florin (1989) established dysfunctional schemas to be one of the predominant factors in bulimic females in their study. The level of DAS scores were not, however, found to be predictive of the severity of the disorder. Mean scores on the Eating Disorder Inventory developed by Garner, Olmsteat, and Polivy (1983), a measure of attitudes associated with eating, were also found to be higher in anorexics when compared to other psychiatric outpatients (Cooper, Cooper, & Fairburn, 1985). Additional studies have addressed the role of residual attitudes in therapy effectiveness in the remission of eating disorders (Freeman et al., 1989).

Dysfunctional attitudes as a predictor variable. Some researchers suggest caution when utilizing levels of dysfunctional attitudes as a predictor of vulnerability and psychological state. In studying dysfunctional schemas and attribution style in healthy controls and persons diagnosed with a thought disorder, depression with psychiatric features, and nonpsychotic depression, Garner, Coryell, Corenthal, and Wilson (1986) established no difference between the depressed populations. They determined future studies need to specify whether the vulnerability status accorded

dysfunctional attitudes are symptoms of depression or a coexistent depressive illness.

Outcomes of other studies point to more direct findings about a relationship between dysfunctional attitudes and depression. O'hara, Rehm, and Campbell (1982) found scores on the DAS to be a predictor variable of postpartum depression in mothers 3 months after date of delivery. Parker, Bradshaw, and Bignault (1984) established the presence of higher scores in a measure of dysfunctional attitudes were related to increased severity of depression. Rush, Weissenburger, and Eaves (1986) concluded that dysfunctional attitudes may predict subsequent vulnerability to depressive symptoms or be more sensitive to subsequent psychopathology than the classical signs.

In a comparison study of cognitive therapy and pharmacotherapy, Simons, Murphy, Levine, and Wetzel (1986) identified high scores on dysfunctional attitudes as one of the independent variables associated with relapse following 12 weeks of therapy. Norman, Miller, and Keitner (1987) found high DAS scores to be related to greater severity of depression, more days in the hospital, and increased likelihood of readmission. Peselow et al. (1990) also confirmed prior findings that higher initial DAS scores were associated with poorer response to treatment. In a study discriminating between cognitive vulnerability and depression, Swallow and Kuiper (1987) determined only subjects scoring higher on the DAS saw themselves as less similar to others as their symptoms of depression increased.

In summary, this portion of the chapter provided evidence in the literature that depression is a significant mental health concern. Epidemiological data describe the disorder as a growing problem with associated personal, economic, and social costs. Several models of Beck's cognitive theory of depression are described as efforts to conceptualize the onset and maintenance of depression. Further, a rationale has been provided for the selection of the structural model of Beck's theory as the theoretical framework for research questions posed by this study. A review of the research literature associated with the structural model and dysfunctional attitudes was provided.

Although debate exists regarding the status of dysfunctional attitudes as a primary cause of depression, there is more than adequate research evidence to demonstrate a relationship between the presence of these attitudes and depression. Further, results of studies have established some capacity for dysfunctional attitudes to serve as a marker for the onset of depression and an indicator of changes toward remission.

This study had, as one of its goals, an inquiry into the capacity of belief systems to serve as attenuating influences on the development of depression. This was an important logical next step toward better understanding the interrelationship between both negative and positive dimensions of cognitive processes and their effects on emotional health.

Mental Health and the Religious Professional

By some estimates there are between 350,00 and 537,00 clergy in the United States (Jacquet, 1991; National Council of Churches cited

in Whittemore, 1991). These men and women are modern-day representatives of a profession which spans thousands of years and diverse cultures and belief systems. Some are the products of rigorous selection processes, advanced graduate educations, and detailed initiation procedures. Yet, others gain admission to the profession by virtue of their personal charisma or less formal recognition by a local religious organization.

As old and diverse as the ministry is, little is known about the mental health of its professional membership. Much of the literature associated with the profession is anecdotal or autobiographical in nature. Often the goal of such material is to assist clergy in addressing the needs of others or to clarify the vicissitudes of their vocation. It is less frequently aimed at empirically assisting the practitioners in understanding their particular vulnerabilities (e.g., Gaddy, 1991; Hart, 1984; Holden et al., 1991; McCandless, 1991; Timmerman, 1988).

In the decade of the 1950s, however, concerns were raised about the rates and factors associated with clergy leaving their profession. In initial studies, Blizzard (1956, 1958) began to isolate stress associated with role confusion and overload as components in decisions to withdraw from the ministry. Blizzard's work was subsequently followed by similar efforts to establish benchmarks for better understanding the various aspects of the clergy's work and models of ministry (e.g., Strommen & Schuller, 1980; Webb, 1967).

Bergin (1983) and Blackmon (1988) identified several factors which tended to limit the generalizability of outcomes in the earlier

studies. Among the limitations were a lack of sophisticated research designs and data analysis, limited pools of subjects, poor response rates, restrictions imposed by denominations, and a lack of clearly defined constructs. Further, the modernist debate between the traditional structural and emerging behavioral schools of psychology tended to deemphasize the purview of religion and spirituality as important aspects of personality.

There is, however, recent increased interest in the roles which religion and spirituality play in human development and adaptability. The articles in several professional journals (e.g., Gilchrist, 1992; Keating & Fretz, 1990; Miller, 1992; Thorson & Powell, 1989; Worthington, 1989) have suggested the importance of religious conviction in the consideration of assessment, diagnosis, and development of treatment strategies. A logical extension to this field of inquiry is to acquire more knowledge about the professional cohort which most influences the transmission of religious and spiritual values, namely, the clergy.

Conceptualization of the Profession

Malony and Hunt (1991) described an evolution in the public stereotypes utilized to describe ministers. These images were described as the following: (a) the common man of the westward expansion movement who embodied the values of a democratic society, (b) the refined and learned gentleman of the late 1800s, (c) the great achiever of the revivalist period in American history, (d) the social change agent of the reform period in the decades of the 1960s and 1970s, and (e) the current view of minister as

organizational manager. Each of the images in their own way captures the various aspects of the profession. It was this diversity of images and confusion of self-understanding that Blizzard (1956, 1958) found to be problematic for many clergy. Jacquet (1991) cited Donald Smith's (1973) appraisal of the ministry as one of the few professions which requires such a broad range of skills and styles of activities.

The Dictionary of Occupational Titles (1991) identifies the following functions associated with ministry: (a) provision of spiritual and moral guidance, (b) preparation and delivery of public addresses, (c) interpretation of doctrine, (d) instruction of children, youth and adult populations, (e) administration of religious and secular rites and rituals (e.g., sacraments, weddings, funerals), (f) visitation of the sick, (g) counseling of the distressed and bereaved, (h) service to the poor, (i) administrative oversight of an organization and personnel, and (j) work in community development.

Gaddy (1991) and Hart (1984) pointed to these multiple functions and the clergy's self-expectations about personal performance as key components in their distress. Similarly, Blizzard (1958) found the inability of clergy to establish a master role around which to identify as a professional to be a significant factor in their decision to withdraw from the vocation. Historically, it has been the questions regarding the effects of these occupational responsibilities on the well-being of the minister which have spawned the most research on the profession.

Occupational Roles

Results of Blizzard's research (1956, 1958) clarified what many clergy had long acknowledged regarding the multiple roles of the profession. A lack of boundaries and clear expectations were inherent sources of identity confusion. The outcome of Webb's (1967) efforts to describe more specific role functions yielded 10 aspects to the work of the minister. These roles included (a) counselor, (b) administrator, (c) teacher, (d) scholar, (e) evangelist, (f) spiritual guide, (g) preacher, (h) reformer, (i) priest, and (j) musician. A comparison of Webb's roles to those elaborated by the Dictionary of Occupational Titles (1991) demonstrates considerable overlap in description of functions.

In a study of how clergy use their time, Merrill and McNally (1980) utilized similar roles as those defined by Webb (1967) and established a rank order by which clergy perceived importance in their work. The estimated percentage of time expended on a weekly basis is noted in parentheses. In order of most to least influence the results of the study were (a) preacher (20), (b) pastor (18), (c) theologian (14), (d) marketer (4), (e) administrator (34), and (f) traveler (11). Administrative functions were determined to extract more of the ministers' time than any of the roles perceived as more important. An obvious conflict between roles considered by the clergy to be important and the demands of the work existed. A study by Gauster, Fusilier, and Mayes (1986) determined that role conflict of this nature and ambiguity in the definition of roles when combined with the under utilization of skills and interests were

associated with higher indices of distress in mental and physical health.

As part of a nationwide study of clergy entitled the Readiness for Ministry Project (see Schuller, Strommen, & Brekke, 1980), Aleshire (1980) described 11 areas of ministry, 9 of which were determined to be positive indicators of successful practice. Two aspects were described as impediments to effective practice. Ranked in order of importance, the positive dimensions were (a) an open and affirming style, (b) caring for people in distress, (c) provision of congregational leadership, (d) being a theologian in life and thought, (e) exemplifying a personal commitment of faith, (f) developing faith and worship, (h) possessing an awareness of denominational or sectarian tradition and government, (i) engaging in ministry to the community, and (j) practicing the priestly and sacramental roles. Embodying a privatistic and legalistic leadership style (i.e., isolated and domineering) and possessing disqualifying personal and behavioral characteristics (e.g., an undisciplined and irresponsible lifestyle, pursuit of personal advantage) were found to be negative markers for competent practice.

Hart (1984) included in his description of the occupational risks associated with ministry the notion that there existed few clear boundaries between roles associated with work and the minister's personal life. Addtionally, Shuller et al. (1980) concluded from their findings that the primary cause of role conflict was the reality that clergy face the same limitations as those with whom they work and serve. Yet, the pastoral roles demand an absence of such limitations.

This inability of ministers to clarify these boundaries and moderate stress related to the work lead some clergy to withdraw from the profession. Results of recent studies suggest dropout rates to range upwards to 30% in some denominations (Williams, 1988). This figure may not include the number of ministers relieved from their duties for varying periods for incapacitation. In the article entitled "Ministers Under Stress" published in Parade Magazine (April, 14, 1991), Hank Whittemore reported a 31% increase of clergy terminations in an 18-month period ending in 1989 in one denomination, the Southern Baptist Convention.

According to Whittemore (1991), each member in a church appears to possess a different set of perceptions and expectations as to what the role of the minister should be. Although the differences at individual levels may be small, the combined effect is viewed as overwhelming by some clergy. It is the minister's inability to meet the expectations of their congregation combined with little objective standards for performance evaluation which exacerbates professional and comcomitant personal stress.

Lifecycle of the Profession

Early study in the diversification of roles and its effects on professional well-being led to inquiry regarding the developmental phases of the vocation. As there are pivotal moments of change in the course of human development, it was thought that periods in the ministers lives may exist when they were more vulnerable to the stress associated with their profession. In a study of the reasons pastors left their profession, Jud, Mills, and Burch (1970) developed a

four-stage model for professional development with two key stressful triggering events. Each of the stages was determined to incorporate specific risks to the minister. Thus, graduation from seminary through the first 2 years in the field required adjustment from the theoretical to applied contexts where individual competency and flexibility were prone to be tested. Three to 5 years after graduation ministers typically evaluated their degree of progress in light of promotions and increased responsibilities. This often resulted in a refinement of career goals based on factors including finances, family situation, degree and type of feedback received on performance, and marketability as a professional. At approximately the age of 40, ministers tended to assess their career goals with an eye toward peak earning capacity. This period was especially sensitive to expanding family needs as children began to exit the family for higher education. Little distinction was made between the anticipation for retirement and the actual event as clergy tended to continue laboring during their retirement years, albeit at somewhat reduced levels. This period was found to be representative of a heightened insecurity about personal health, and loss of vocational identity and collegial support system.

Jud et al. (1970) described three specific triggering events which tended to exacerbate stress during these stages of professional development. First, moving to a new placement, though possibly symbolizing promotion or the removal of existing interpersonal conflicts, also meant uprooting and leaving stable support systems for the minister and members of the family. Second, conflicts

between the clergy and congregation often resulted in ministers questioning their self-esteem, character, and integrity. During these periods of conflict, unresolved personal issues also often surfaced. Lastly, changes in denominational structures which determined movement, promotions, status, and support often shifted the familiar basis of power and decision making. The experience of any or a combination of these triggering events tended to potentiate the risks associated with the existing developmental phase of the minister.

Malony, Newton, and Hunt (1991) refined a five-stage model of ministry which included periods for academic or mentor preparation in college or seminary, entry level experience of 3 to 5 years, advancement symbolized by moves to larger churches during the minister's 30s and 40s, a maintenance of status during late midlife through the early 60s, and a period of decline in responsibilities from the late 50s into the 70s.

In a discussion on the relationship of commitment to longevity in the profession, Malony et al. (1991) cited an unpublished study by Dean Hoge, John Dybel, and David Polk in which researchers questioned clergy on their consideration of leaving their existing parish or the vocation. Results of the survey indicated that within the last year, 26% of the respondents thought they would like to leave, 13% were considering a move, and 10% were actively pursuing a move from their current location. In the same survey, 9% of the clergy were uncertain they would enter the ministry again while 4% indicated they probably or definitely would not do so. Nineteen percent of the clergy thought somewhat seriously over the past year

about leaving the ministry with 6% currently reconsidering their commitment and 1% actively engaged in trying to leave the vocation.

That some percentage of ministers consider a vocational change makes them little different than other professional groups. Of interest in this study, however, is the degree to which maladaptive attitudes when combined with personal and occupational stress become associated with depression. The onset and course of depression can exacerbate existing problems and, if severe enough, paralyze the minister's capacity to fulfill professional and personal responsibilities (see Gaddy, 1991). It is the contention of this research that depression may in the long run be a major factor in clergy withdrawing from the profession.

Factors Associated with Occupational Stress and Burnout

The sources and reactions to stress encountered in the workplace and day-to-day activity can be varied. Levi (1990) concluded, however, that when a mismatch existed between perceptions the worker holds about the job and the realities of the work, the potential for maladaptive behaviors is increased. Moreover, if the employee lacks certitude and some measure of control over the work environment, adequate coping mechanisms, and social support, more severe pathogenic and chronic reactions may occur.

Hatcher and Underwood (1990) examined the relationship of self-concept and stress in a group of Southern Baptist ministers. Their findings suggested trait anxiety has a negative relationship with self-criticism and several life changes. Clergy under stress who

scored higher on trait anxiety tended to have a lower self-concept and respect for their efficiency as a minister. Concomitantly, the minister tended to engage in self-criticism which further impeded constructive coping. The researchers suggested these factors when associated with life changes could potentially disrupt levels of personal and professional function.

Results of Blackmon's survey research (1988) also described clergy concerns around issues associated with self-esteem. Fifteen percent of the 300 respondents indicated a neutral evaluation of their self-esteem while 12% viewed themselves negatively. Only 27% of the clergy in his study evaluated themselves as having a healthy level of self-esteem. There was no differentiation across denominations in this regard.

As in other studies (Mills et al., 1971, 1972; Whittemore, 1991), personal finances were seen as problematic. While 85% of the respondents thought their salaries adequate, 75% described insufficient savings, and 50% were distressed about their pension plans. This was viewed as an area of concern which impacted the ministers sense of self-worth.

In a study of the relationship between continuing education and stress in clergy, Mills and Hesser (1972) determined time pressure and deadlines along with inadequate funding were barriers to participating in educational interventions. Of significance in the findings was that increased career stress (e.g., status inconsistency, relative deprivation of personal needs) was associated with a greater desire for study. High stress was viewed as a marker of inadequacy

in intellectual resources and coping. Failure to acquire ameliorative skills, therefore, added to the perceived job stress. Blackmon's study (1988) determined that 42% of his sample did not feel adequately trained to lead a church creatively. Additionally, 41% did not see themselves as properly prepared to provide counsel to persons in crisis though virtually all viewed this as an important job function.

It is logical that ministers, confronted with increasing job demands and occupational stress and lacking in adequate skills, may succumb to more critical views of themselves. This self-critical view may result in potentiating negative attitudes which act as tinder for depression. Levi (1990) noted that such reactions entail emotional, cognitive, behavioral, and physiological dimensions. Under the right conditions, they may lead to physical and mental disease. In a profession acknowledged by some authors (see Congo, 1983; Daniel & Rogers, 1982) to be vulnerable to burnout, knowledge about cognitive factors contributing to diminished personal health can be utilized to enhance coping mechanisms and skills to avoid stress related illness and depression.

Women and the ministry. A more detailed examination of stress in women serving in religious leadership roles was undertaken by Rayburn (1991). Levels of stress, strain, depression, and coping measures were assessed in nuns, ministers, and rabbis. Nuns were found to experience lower levels on all measures than clergywomen. Female rabbis experienced the greatest stress, strain, and possible depression and possessed the fewest coping resources.

Results of studies on the experience of women in the ministry, a traditionally male-dominated profession, have, by and large, found some of the stress and strain explained as a function of their difficulty in breaking into the profession and gaining the respect of their male counterparts and congregations. Carroll, Hargrove, and Lummis (1981) determined that women demonstrated a greater need to excel in seminary and were more aware of the sexist nature of the church in its treatment of clergy. This intellectual astuteness and political awareness has been both a blessing and a curse for clergywomen. Although the church has benefitted from these competent practitioners, the female practitioners have not enjoyed equal recruitment and hiring opportunities.

Some researchers have found evidence to support women's contention that they experience more rejection and suspicion and are blamed for going against social conventions because they function in a male-dominated field (Rayburn et al., 1986). Clark and Anderson (1990) determined that 55.7% of their female sample of clergywomen had significant frustration in working relationships with their male counterparts. Additionally, 40% believed restrictions on their work roles (e.g., worship leader, teaching, visitation) were the result of gender bias.

Evidence exists to support the view of the ministry as a stressful profession (Congo, 1983; Daniel & Rogers, 1982). Results of one study including both women and men clerics, however, suggested clergy (i.e., priests, brothers, nuns, ministers, seminarians) may experience no more work stress than other professions.

Rayburn, Richmond, and Rogers (1986) utilized a survey questionnaire and measure of occupational environment to study stress within religious leadership roles. Of the five factors examined, role overload, role insufficiency, role ambiguity, role boundary, and physical environment, men and women differed only on ambiguity and overload with males being higher on both. Both men and women thought the latter responded more constructively to unclear definitions of job expectations and situations where job demands might exceed personal resources.

In a similar study Richmond, Rayburn, and Rogers (1985) determined single clergypersons of either gender to experience less stress. Clergy couples were found to be the best combination for overall decreased scores on occupational stress as partner-shared experience and support favored the moderation of severity levels. At highest risk was the nonclergy spouse of a female pastor. He experienced increased levels of role insufficiency and psychological and vocational strain. Perhaps this was also congruent with the female nonclergy spouse's experience prior to the acceptance of dual-career marriages.

Studies by the same authors assessed the influence of marriage and family on the clergy's perception and experience of job-related stress. In a similar study of single, married, and clergy couples, Rayburn (1988) indicated both single male and female clergy differed on their perception of stress. Women viewed their female cohorts capable of responding to stress more constructively. In the group of married clergy, men demonstrated significantly higher

levels of role insufficiency, ambiguity, and boundary confusion. Additionally, it was determined men experienced higher role strain and possessed fewer recreational and personal coping resources.

In summary, evidence in the literature suggests that when considering the association of maladaptive schemas and depression in women clergy, some thought has to be given to their minority status as reformers within a historically male profession. Additionally, findings in the literature point to marriage status as a potential moderating variable affecting professional esteem and emotional health.

Sexuality and professional behavior. Blackmon's survey of clergy (1988) described self-reported sexual behaviors to be a source of personal and professional concern amongst the respondents. While 15% of the 300 ministers indicated they felt sexual attraction on a daily basis, 37% believed they had engaged in sexual behaviors inappropriate for their profession. Further, 12.7% stated they had engaged in sexual intercourse with a church member other than their spouse. A survey by the Professional Ethics Group at the Graduate Theological Union-Berkeley determined one in four clergy has had sexual contact with a parishoner (Crooks & Baur, 1990). Comparably, Pope, Keith-Spiegel, and Tabachnick (1986) found 87% of the 575 psychotherapists surveyed in their study reported sexual attraction to their clients on one occasion. However, only 9.4% of the males and 2.5% of the females had acted on such feelings.

In a profession which values the implied covenant of fidelity in marriage and the trust relationship between clergy and congregant,

the breech of such moral and ethical conventions in sexual behavior may be an indication of severe personal distress including depression on the part of the minister. Concern over this issue in the Presbyterian denomination has resulted in the development of a comprehensive paper on the ethics of sexual misconduct. Acquistion of knowledge about the cognitive and emotional factors which contribute to behaviors which may injure those persons ministers are called to serve as well as the clergy themselves is a worthy undertaking.

Clergy and Depression

It is difficult to know how much stress-related illness and professional dysfunction in clergy is in some part related to depression. A lack of assessment designs, operationalized constructs (e.g., burnout), and the sheer dearth of studies precludes any significant conclusions. For instance, a consultant cited by Whittemore (1991) concluded that approximately 17% of the parish clergy with which he has worked were suffering from long term stress or burnout (see p. 4). While no definition for burnout is given, it is reasonable to think that some symptoms of burnout may be confused with or coexistent with those of depression.

It can be deduced, however, from the evidence cited in studies described in this review of the literature on stress, vocational dropout, and related professional concerns (e.g., inadequacy in salaries, insufficient preparatory education, sex discrimination, limited personal coping skills, and breeches in ethical behavior codes) that depression is a factor. Blackmon (1988) found 10% of the

ministers in his sample admitted to feeling depressed. This is a rate higher than the estimated normative at large population (see NIMH, 1991). Further, 57% of the respondents in his study indicated they sometimes or often felt depressed.

While there are limited empirical data concerning depression in clergy, several recent popular works make a case for depression being viewed as a serious concern for clergy. Hart (1984) suggested that ministers' failure to take care of their bodies, the ambiguous nature of the work, the loneliness endemic to the leadership role, and demands on time and personal life combine to make the profession highly vulnerable to depression. In the autobiographical narrative of his descent into and subsequent recovery from chronic depression, Gaddy (1991) depicted a lack of meaningful personal support and clearly defined occupational roles within the church as significant factors in his illness. So compelling was his story, Norris's (1992) review of the book was selected as the cover theme in the Presbyterian Outlook, a weekly professional journal for ministers.

Some evidence also exists to suggest persons choosing the ministry as a profession may be vulnerable to its hazards based on their personalities. According to Maeder (1989), the choice by some to become a helping professional (e.g., ministers, psychiatrists, psychotherapists) was unknowingly based on the attraction to power, dependence of others, an image of benevolence, and the possibilities of adulation. Maeder (1989) also described two kinds of clergy, one aligned with the common folk in a search for salvation founded on a self-awareness of one's limits and the other a rigid and judgmental

figure carrying out the profession's duties from a position of authority.

In validating a vocational preference inventory on clergy, Fabry (1975) found clergy tended to rate their attraction to social interaction at rates twice that of other aspects in the inventory. Utilizing the Holland Personality Profile Types, clergy as a group ranked themselves highest to lowest as social, artistic, investigative, enterprising, realistic, and conventional. Heightened attention to the social aspects of the profession may be confounding in that interpersonal conflicts, failure to meet perceived expectations, and disaffection of membership may potentiate associated dysfunctional attitudes (e.g., need for perfection, avoidance of differences, diminished self-worth).

Similarly, Hart (1984) described the following five personal characteristics of clergy as prepotent for depression: (a) a lack of internal control or self-discipline by which to moderate occupational stress, (b) a low sense of responsibility, (c) unrealistic and self imposed expectations, (d) a sense of perfectionism in their exemplification of faith, and (e) an idealistic view of the ministry as free from the vicissitudes of conflict and disappointment associated with other secular vocations.

In summary, a review of the literature on ministers described a profession which by virtue of its varied roles, ambiguous standards for evaluation, and organizational resources is vulnerable to stress-related illness and burnout. Both of these conditions are also related to vulnerability toward depression. Much of the literature on

ministers is centered on clarifying various paradigms utilized by them for professional practice. Little study of their mental health or the cognitive factors which may contribute to their well-being is in evidence.

The Relationship of Mental Health and Religious Beliefs

Results from recent studies examining the relationship of religion and personal well-being have described no inherent significant negative associations. Among their research sample, McClure and Loden (1982) found time spent on religious activities was positively related with perceived happiness and negatively associated with stress. In a study of an intrinsically and extrinsically religious sample, Bergin et al. (1987) detected no relationship between scores on the Religious Orientation Scale in either group with irrational beliefs or depression. In a follow-up study assessing the relationship between religious lifestyles and psychopathology, Masters et al. (1991) also observed no linkage between religiosity and psychopathology. Results of research conducted by Trent et al. (1984) established some evidence to support the argument that morale and self-esteem were boosted on measures of the Minnesota Multiphasic Personality Inventory in a highly religious student sample.

In a study of depression and religion, Cadwallader (1991) has described two modes of religion which can be viewed as a continuum of lifestyle. One pole of the continuum was conceptualized as life celebrating and self-affirming and appeared to deter depression. The other was viewed as life constricting, self-derogating and

potentiated depression. Similarly, Bergin et al. (1988) discovered that persons with a continuous religious development and ongoing experience of faith appeared healthier than those with discontinuous, episodic, and intense belief structures and styles.

While results from the aforementioned studies confirm a more positive role for religious belief in health, overemphasis or distortion of certain aspects of religious faith may be detrimental to resolving distress. Holden et al. (1991) found counselors and clergy agreed on the need to challenge religious convictions which were misinterpretations or distorted applications of faith tradition. McCandless (1991) identified perfectionism, exaggerated self-denial, surrender, the repression of feelings of anger and grief as examples of religious attitudes which may hinder personal and relational development. The need to teach principles emerging from religious faith which encourage self-esteem, problem solving skills, and enrichment of personal spirituality was emphasized.

In his article titled, "Shedding light on the darkness of depression," Timmerman (1988) described several characteristics of belief systems which could exacerbate recovery from depression. A sense of unworthiness and forsakeness lead to inappropriate self-blame and guilt in persons. Some formulaic notions of Christianity resulted in a posture of failure and shame (e.g., Let go, Let God, All is well with the world when one is right with God, The power of positive thinking will help things be better). These slogans represented quasi-religious beliefs and tended to encourage reductionistic and simplistic explanations of complex life experiences.

Lastly, persons sought and sometimes did not find immediate and sufficient answers to explain the occurrence of tragedy or illness which had befallen them or their loved ones. A failure to arrive at meaningful answers resulted in a heightened sense of unworthiness or blame taking. The sufferer in such cases could be twice victimized for fear of questioning the religious presuppositions upon which some of these approaches were based.

Timmerman (1988) stressed the importance of religion helping persons conceptualize a curative alliance between the mind, body, and spirit. Additionally, he viewed the religious community as a source of social support to assist in one's recovery. As example, Timmerman suggested an emphasis on the humanity of Jesus of Nazareth in the Christian tradition could serve to normalize experience and create an empathetic relationship between one's personal suffering and the Creator.

More knowledge is needed about maladaptive schemas which may diminish the effectiveness of religious faith as a curative factor. Maladaptive attitudes based on distorted religious convictions can serve to exacerbate depressive illness. The inquiry of this research into the influence of maladaptive attitudes in depression in an acknowledged highly religious sample can contribute to a better understanding of these relationships.

Depression-Resistant or Countervalent Beliefs in Presbyterian Clergy

Weissman and Beck (1978) identified seven dysfunctional attitudes or schemas which have been found to be associated with depression. These attitudes consist of content, which when

exaggerated, can predispose a person to negatively interpreting life experience. The schemas relate to the personal desires for approval, love, achievement, perfectionism, entitlement, omnipotence, and autonomy. Beck et al. (1979) suggested the presence of these activated schemas primed the individual for the cycle of depression. The presence of one or more of these attitudes has been related to depression or depression-related symptoms in a number of studies (e.g., Barnett & Gotlib, 1988a; Eaves et al., 1984; Ellis et al., 1986; Giles, 1982; Peselow et al., 1990; Rush et al., 1986).

Of particular interest to this study is the association of these attitudes with a concurrent measure of depression in an expressly religious cohort of ministers. Presbyterian ministers espouse a theological belief system which is, at least in the abstract, countervalent to the depressogenic attitudes hypothesized by Beck's cognitive theory. It is logical to think this belief system, if adhered to, would provide a type of cognitive resistance to depression.

There are, however, social, economic, and occupational factors which appear to test this cognitive resilience. Maeder (1989) described a prevailing and unrealistic social stereotype and expectations of clergy. Ministers are not only to be good in a moral sense but as persons called by God, devoted to serving others. They are to reflect attributes of humility, piety, generosity, and exemplify the highest standards of their faith in the eyes of the public. Ministers are expected to view their professions as a commitment to a full-time lifestyle.

Hart (1984) described the minister's trap as the temptation to subjugate one's personal and social well-being to the good of the church. The professional, therefore, succumbed to a loss-prone perspective on life and work. Though conflict, death, and disappointment are to be expected in a people-oriented profession, they were experienced by clergy as personal failures. Boundaries between the personal and family life and the need of the church or clear criteria for measuring success tend to result in self-criticism and blame. Hart (1984) also found the minister more sensitive to being placed on a pedestal and expected to perform at unrealistic levels. Inevitably, the clergy viewed their profession as a conflict between one's humanity and the demands of the church.

Ministers are also presented with a diverse array of models from which to conceptualize their professional practice. As if multiple paradigms can be utilized, each to fit a particular problem area, ministers can understand themselves as professional practitioners (Glasse, 1968), wounded healers (Nouwen, 1972), contemporary apostolics (Smart, 1960), sacramental persons (Holmes, 1971), or pastoral shepherds (Hiltner, 1969), to name but a few identities. Beyond the traditional roles of prophet, priest, and counselor, clergy have been increasingly engaged as social change agents and community development specialists. This plethora of vocational identities and the attendant role confusion lead Malony and Hunt (1991) to suggest that a warning be stamped on each ordination certificate which would read: Warning! Ministry may be dangerous to your health!

Clearly, the stress and ambiguities associated with ministry may strain the efficacy of ministers' underlying belief system. Yet, it is this set of fundamental schemas which shapes the minister's intrapersonal perspectives and the collective network of colleagues. The ordination questions which are propounded to candidates in the Presbyterian Church (USA) emphasize the role of these beliefs at the personal and corporate levels. A candidate for ordination is asked the following: "Will you be governed by our Church's polity (i.e., government), and will you abide by its discipline? Will you be a friend among your colleagues in ministry, working with them subject to the ordering of God's Word and Spirit?" (Book of Order, 1991). Response to these and other questions regarding faith and practice undergird the minister's public confession and assent to the denomination's theology.

The theology of the reformed tradition from which Presbyterianism has evolved is based on several fundamental principles. In content these seminal beliefs contradict the negative content of attitudes Weissman and Beck (1978) described as depressogenic. Mead (1990) described the denomination's theology to be centered on the idea of God's sovereignty over the world and people's lives. Humans are ultimately dependent upon God as creator and sustainer. Individual autonomy is viewed as a gift and not a goal to be achieved at the expense of dependence upon God or interdependence on one's fellow humans (Calvin, 1967). Aspiring to exaggerated individualism is viewed as idolatrous and self-aggrandizing.

Another aspect of Presbyterian theology which may mitigate against exaggerated autonomy is a doctrine called the priesthood of all believers (Wallace, 1959). This belief suggests each person is called upon to serve others and be open to such ministrations by fellow believers. Ideally Presbyterian ministers see themselves, therefore, as members of a community in which a reciprocity of care and learning is possible. Openness to care offered by others is consistent with the idea of being a member in a responsible and caring community.

Attitudes which embellish human perfection and omnipotence also contradict the Presbyterian theological tenet of God's sovereignty. Only the Creator is viewed as perfect or complete. Guthrie (1968) characterizes humankind as totally dependent upon God, yet, created to enjoy freedom and the associated limitations which accompany human responsibility. Human endeavors to achieve perfection are considered veiled efforts at becoming like God, a form of idolatry. These superhuman efforts are characterized by greed and insecurity and lead to diminished appreciation for one's role in and the welfare of the community. The recognition of one's limitations and acceptance of boundaries to personal and social action is understood to enhance the development of self and strengthens the relationship between God and the human community.

Mead (1990) also described the centrality of Jesus Christ for Presbyterians as the source of salvation. This theological assertion views the human need for salvation and forgiveness to be a universal experience. Some degree of failure in all arenas of human

life is expected. For Presbyterians dependency on God's forgiveness is the key to creative personal and community life. Professional or personal behaviors which represent aspirations to perfectionism abrogate this key belief.

The need of humans to be loved and enter into relationships with others has long been acknowledged in psychological and religious traditions. Presbyterians believe that human beings are created in God's image. This act of creation implies that being human means to live in relationship with God and one's fellow humans (Guthrie, 1968). To deny the fundamental need of community is to deny one's humanity. While the need for participation in comunity is of seminal importance, Presbyterians also assert the Creator's love as the only truly sustainable and reliable source of love. To expect other humans to meet all one's needs for affection and love is considered unrealistic and prideful.

Likewise, expectations that other persons must be in agreement with what we say and do is a distortion of how Presbyterians perceive the nature of community. Conflict is the inevitable product of persons being created differently. Reconciliation and atonement are the products of mutual sacrifice and forgiveness. Any effort to idealize or diminish one's personal contribution and responsibility in conflict becomes self-serving and, therefore, injurious to self-esteem and community. Exaggerated self-debasement or denial are viewed, therefore, as idolatrous and self-centered. Conflicts which occur in a church setting can be viewed as expressions of individuality and grist for creative reconciliation as

opposed to attacks on the personal or professional attributes of clergy.

Gaddy (1991) and Hart (1984) described the inner motivation of ministers to achieve, to take on more responsibilities as a way of gaining control over ambiguity through activity. Presbyterian theology sees the motivation for achievement primarily rooted in the response to being loved by God and others. Question 4 in the constitutional questions for the ordination of Presbyterian ministers invokes the candidate to love others and work for the reconciliation of the world (Book of Order, 1991). Work is understood to be the response to God's love of creation and self. The minister's labors are ideally shaped by personal commitment and a grand perspective on life of the church. Achievement for the sake of self-glorification or meeting one's deficiency needs contradicts the spirit of human enterprise as conceptualized in Presbyterian theology. Humans work to live, therefore, not live to work. Obsession with work detracts from the balance of a creative relationship with God, creation, and others.

Presbyterian theology also recognizes a dependency of humans on a God that creates and loves. Human freedom is seen as a gift which is bounded by temporal and physical limitations. Individuals both seek autonomy in self-determination, yet are dependent upon others for the love and support necessary to be creative within community. Exaggerated claims or activities which promote self over others or attempt to resolve personal insecurities at the expense of

others is viewed as idolatrous and counterproductive to being fully human.

It is reasonable to think that, if adhered to, these theological beliefs may attenuate the formation of depressogenic attitudes based on distorted ideas of perfectionism, approval, entitlement, and omnipotence. Obtaining knowledge about the levels of maladaptive attitudes in Presbyterian ministers can contribute to better understanding the influence of a countervalent belief systems on their development and potentiation.

Mental Health Counselors as a Comparison Group

One goal of this study was to determine the presence and influence of dysfunctional attitudes as a concurrent measurement of depression in a sample of Presbyterian ministers. This knowledge may contribute to existing ideas about the role of those attitudes in cognitive theories of depression. Additionally, the data from this study may add to information about the status of mental health in the clergy. Assessment of a comparable professional group also may aid in differentiating the results of the study and clarify which attributes may be distinctive to the Presbyterian clergy. Further, data acquired about the comparison group of mental health counselors contribute to the existing body of knowledge about this profession as well.

Mental health professionals are not immune from the exigencies of stress which cause distress in the populations they serve. Mismatches in their vocational expectations, levels of control and work overload of therapists can result in similar emotional,

physical, and behavioral symptoms. Maeder (1989) concluded psychotherapists and ministers were particularly vulnerable to distress because of the values which motivated entry into their respective professions and the realities of the demands, ambiguous roles, and uncertain standards for evaluating progress. Levi (1990) argued that such an unresolved conflict over time resulted in diminished physical and mental health. Ganster, Fusilier, and Mayes (1986) found a positive relationship existed between work strain, dissatisfaction, and depression. Social support, that is the network of family, friends, and coworkers, was found to have only modest effect on lowering perceived strain. It was not a significant buffer of work-related stress.

Although underlying belief structures based on theological, philosophical, or scientific belief preferences may differ, the ministry and mental health counseling professions share certain occupational functions. The Dictionary of Occupational Titles (1991) has characterized both vocations as people-oriented fields requiring advanced higher education. In the case of Presbyterian clergy this is a minimum of a master's degree, 3 years beyond college. For purposes of certification and licensure, depending on the specific state's law, mental health counselors also require 2 years of graduate education and additional clinical experience. Both professions, according to the D.O.T. (1991), require effective skills in reading and writing with a facility for critical thinking and analysis. Each occupation provides counsel and guidance to persons in crisis as well

as education of life skills for living. Some skills in administration and organizational leadership are also utilized.

Like ministers, mental health counselors and other helping professionals have also been found to suffer from role overload and burnout in their work contexts. Oberlander (1990) described community mental health counselors working with the seriously mentally ill to have relatively higher levels of stress and job dissatisfaction. In a study by Cournoyer (1988), 64% of the social caseworkers suffered from stress-related health problems. Stress was perceived as a byproduct of the increased breadth of challenges relative to personal and vocational demands. Included in factors related to the stress was the lack of improvement seen on the part of clients relative to the amount of energy invested on the part of the therapists. Similarly, Ross et al. (1989) established that perceived higher stress was related to burnout in a counseling center staff.

Ratliff (1988) reported that 44% of the therapists surveyed in his survey indicated a lack of tangible therapeutic success accounted for the greatest stress at work. Other factors identified as significant stressors included functioning in an emotionally demanding job for which there is little reciprocation of energy expended, personality characteristics of the therapist, and the other centered nature of the work. These occupational characteristics are similar to those described as inherent in the ministerial profession.

Evidence suggests experience with stress begins in the formative years of professional development for both professions. Smith (1985) found both graduate psychology and divinity students

in one university scored higher on negative mood measures than did their peers in schools of medicine, religion, and business administration. The results of an analysis of the mental health of graduate counseling students in training described the sample as having higher psychological disturbance than did the general population on six of the seven MMPI scales, including depression (White et al., 1990). Global stress including work, studies, and strain on relationships were suggested as factors in the outcomes.

An additional factor supporting the comparison of the two groups in this study is their mutual concerns for human growth and development. Though sharing different paradigms (see Bergin, 1980), both clergy and counselors seek to enhance the quality of life for persons and the systems in which they live and work (e.g., family, work, and community). This mutual interest is symbolized in recent journal articles which call for consultation and understanding between the groups in the interest of better serving clientele (Holden et al., 1991; Keating et al., 1990; Miller, 1992). Bergin (1980) has also encouraged a rapprochement between the disciplines of psychology and religion and a greater understanding of the theistic concepts utilized by a majority of the American population served by the psychological professions. A review of professional journals in the mental health and counseling fields indicates consideration of the merits of religion and spirituality as key concepts in human development is underway (e.g., Gilchrist, 1992; Keating & Fretz, 1990; Miller, 1992; Thorson & Powell, 1989; Worthington, 1989).

There exist some distinctive attributes which distinguish mental health counselors and Presbyterian ministers. Bergin (1980) elaborated the differences in change paradigms between the groups. For example, there are substantive philosophical differences between the humanitarian and sectarian approaches to understanding the nature and destiny of life. The role of rituals and the subordination of personal will to a monotheistic and transcendental life source remains foreign to counseling practitioners who emphasize individualism and self-actualization. Additionally, for Presbyterian ministers the teleological concerns from which persons draw meaning for their lives include concerns for duty and responsibility for the well-being of others. Moral and ethical conduct toward others, even at the cost of one's own interests, is viewed as a seminal component in a faithful religious lifestyle. While such behavior is applauded by counselors, it is not necessarily or systematically taught as an aspect of emotional well-being.

The organizational context within which the two groups carry out their vocations also differs significantly. Mental health counselors do not regularly function in voluntary associations. Generally, their services are provided on a cost basis with a goal toward turning at least a modest profit. The minister's services are often provided at no specific cost above and beyond that which is ordinarily a part of the parishoners contribution to the church. The exception to this practice is the work of the trained pastoral counselor who may work in a for-fee service and structure not unlike mental health counselors.

The role and power associated with occupational hierarchy may also differ with regard to oversight, administration, and job mobility. The two groups do not likely share the same performance expectations on the part of their clientele, who in the case of the clergy are comprised of the employer, the congregation. Further, female professionals in mental health counseling may experience some discrimination based on client reactivity. Their inherent right to practice their chosen vocation, however, is not called into question on the basis of their gender as is the case with many women ministers.

In summary, Presbyterian ministers and mental health counselors share a number of similarities in job functions, requirements in preparation for professional practice, occupational stressors, and related interests in the development of human well-being. The distinctions between the two groups provide enough differences to distinguish the populations without disqualifying them as similar helping professionals. It is logical, therefore, to utilize mental health counselors and Presbyterian ministers as reasonable comparison groups for the purpose of this study.

Chapter Summary

The review of literature pertinent to this research provided supporting evidence for a study of cognitive factors related to depression in Presbyterian ministers. The epidemiological data reviewed herein suggests depression is a major mental health care concern in the general population. Additionally, results from

research also demonstrate the vulnerability of helping professionals such as clergy to stress-related illnesses.

The review of the literature pertaining to the profession of ministry raises significant questions regarding the impact of role clarity, work overload, and the lack of specific job-performance evaluative criteria on the personal health of ministers. Additionally, issues about adequate training, compensation, gender discrimination in the workplace, and sexual misconduct are raised as prospective problems for the clergy's emotional health. The limited anecdotal and empirical evidence in existence suggest ministers to be at risk for physical and emotional distress, including depression.

The structural model of Beck's (1963) cognitive theory of depression asserts that underlying negative beliefs play a prominent role in the development and maintenance of depression. Results of research reviewed in this chapter substantiate a relationship between these dysfunctional schemas and depression. Some data also exist to suggest dysfunctional attitudes may serve as predictors for the severity, course, and potential relapse of depression. Little research, however, has been undertaken to ascertain the effects of dysfunctional attitudes on the emotional health in populations which espouse an ideology countervalent to the depressogenic attitudes identifed by Weissman and Beck (1978).

A survey of professional journals in the counseling field reveals an increased recognition of the role spirituality and religion play on personality development and mental health. Presbyterian ministers, by virtue of personal profession and public ordination, ascribe to a

set of spiritual beliefs which in theory contradict the content of attitudes found to be associated with depression. A logical next step in research of the cognitive theories of depression is to ascertain the potency of these mitigating beliefs on the deveopment of depression in this population. A comparison group from a professional group sharing limited vocational similarities, specifically mental health counselors, has been utilized to clarify and distinguish attributes endemic to the clergy.

CHAPTER III
METHODOLOGY

Chapter Organization

The purpose of this study was to apply the cognitive theory of depression proposed by Aaron Beck (1967) in an investigation of depression in Presbyterian (USA) ministers. Specifically, this research sought to ascertain through the use of the Dysfunctional Attitude Scale the presence and level of dysfunctional attitudes theorized by Beck (1978) to be associated with depression. Further, these attitudes were evaluated as predictors of the current level of symptoms associated with the syndrome of depression as measured by the Center for Epidemiological Studies' Depression Scale (CES-D) (Radloff, 1977). In addition, this research endeavored to determine whether the levels of depression and dysfunctional attitudes in the Presbyterian clergy occur at rates similar to a cohort of comparably trained professionals in a help-giving vocation, namely, mental health counselors.

In this chapter the research hypotheses, study design, and subjects are described. Further, the components of the research instrumentation, measurement properties of instruments, procedures for data collection, type of data analysis, and limitations of the study are discussed.

Research Hypotheses

For the purposes of this study, the following hypotheses were examined:

Ho_1: There is no significant difference between Presbyterian ministers and mental health counselors on current level of depression.

Ho_2: There is no significant relationship between the current level of depression and level of dysfunctional attitudes.

Ho_3: The relationship between the level of depression and dysfunctional attitudes does not differ for Presbyterian ministers and mental health counselors.

Ho_4: There is no significant relationship between the current level of depression and (a) gender, (b) age in years, (c) marital status, (d) tenure in profession, (e) type of service, and (f) race or ethnicity.

Ho_5: The relationship between current level of depression and (a) gender, (b) age in years, (c) marital status, (d) tenure in profession, (e) type of service, and (f) race or ethnicity does not differ for Presbyterian ministers and mental health counselors.

Ho_6: There is no significant difference between Presbyterian ministers and mental health counselors in their level of dysfunctional attitudes.

Ho_7: There is no significant relationship between the level of dysfunctional attitudes and (a) gender, (b) age in years, (c) marital status, (d) tenure in profession, (e) type of service, and (f) race or ethnicity.

H_{O8}: The relationship between dysfunctional attitudes and (a) gender, (b) age in years, (c) marital status, (d) tenure in profession, (e) type of service, and (f) race or ethnicity does not differ for Presbyterian ministers and mental health counselors.

Research Design

Aaron Beck (1967), in his theory of depression, asserted that cognitions play a fundamental role in the onset and maintenance of depression. The structural model of the theory further describes a continuum of depression in which powerful, underlying rules of behavior (i.e., schema, dysfunctional attitudes) influence the processing and interpretation of environmental stimuli. Weissman and Beck (1978) identified six attitudes based on exaggerated needs for approval, love, perfection, omnipotence, entitlement, and autonomy which were associated with concurrent measures of syndromal depression.

A review of the relevant research literature supports the assertion that dysfunctional attitudes are related to depression and are stable measures when compared to self-reported symptoms of depression. These attitudes have also been found to interact with negative life experience and stress related to the disorder. Dysfunctional attitudes have also been found associated with other emotional distress related to depression, notably suicidal ideation and eating disorders. Additionally, evidence in the literature supports dysfunctional attitudes as potential predictors of severity, length of days in the hospital, and likelihood of relapse and readmission to treatment for depression.

Of particular interest to this study was the relationship of these attitudes on depression in a population of helping professionals, namely, Presbyterian ministers. By virtue of self-proclamation, training, and ordination to labor in the vocation, this population subscribes to a belief system which in theory contradicts the content of the depressogenic attitudes identified by Weissman and Beck (1978).

A review of the literature on ministers characterizes the profession as increasingly stressful with multiple roles and a lack of definitive boundaries and unclear expectations. Results of studies have described ministers suffering from low self-esteem, inadequate preparation for their various work roles, discrimination based on gender, lack of occupational security, and increased emotional distress including depression.

A logical next step was to acquire empirical data on the level of depression in a sample of ministers to ascertain the relationship of dysfunctional attitudes in these professionals. To this end the instrument of this research was selected to determine the level of self-reported syndrome-consistent depression, assess the presence and level of dysfunctional attitudes, and solicit descriptive demographic data regarding gender, marital status, tenure in the profession, racial and ethnic identity, and type of service. The research instrument was comprised of three components: (a) the Center for Epidemiological Studies' Depression Scale (CES-D), (b) the Dysfunctional Attitudes Scale, and (c) a demographic questionnaire.

A comparison sample of similar helping professionals consisting of mental health counselors was utilized. The distinctions between the two groups' professional training, occupational goals, work contexts, and philosophy clarified results of the research particular to the respective populations.

Subjects

The target research population for this study were Presbyterian Church (U.S.A.) (PCUSA) clergy. Criteria for inclusion into the survey population included ordination into the denomination or transfer of ordination from another ecclesiastical agency which has been approved according to the Presbyterian Church (U.S.A.) form of government. Subjects included active, nonretired ministers currently serving under the aegis of one of the denomination's governing bodies (e.g., general assembly, synod, or presbytery). According to the Office of the General Assembly of the PCUSA, in December of 1992 there were 20,450 ordained clergy who fit these criteria. Women accounted for 11.8% (2,419) of the total population (I.J. Smith, Personal communication, January 5, 1993).

The demographic questionnaire solicited information from the clergy sample as to their gender, age, marital status, tenure in profession, racial/ethnic background, and type of service (Appendix A). Gender was coded male or female. Age in years was indicated by respective number. Marital status was determined by subject response to the following categories: (a) single, unmarried, (b) married, (c) separated or divorced, (d) widow(er), or (e) currently not married and cohabiting. Tenure in profession was described by

the number of years since ordination (i.e., by an agency of or approved by the PCUSA).

Subjects were asked to denote their racial/ethnic background by the following choice code: (a) Asian/Pacific Islander, (b) African-American, (c) Hispanic, (d) Native American, (e) White (not of Latin origin), or (f) Other. The minister's type of service was determined through subject selection of one of the following categories which best represented the primary vocational responsibility to their ordination: (a) parish or congregational based ministry or (b) specialized ministry/institutional.

Additionally, in order to enhance the likelihood of subject response (Dillman, 1978) and provide opportunity for participant feedback, two open-ended questions were included in the booklet. Paricipants were provided space in which to respond if they so desired. The questions were as follows: What do you do to cope with stress associated with your daily work and life experiences, and what resources would be helpful to you in coping with stress associated with your work and daily life experiences?

The comparison population for this study was comprised of active members in the American Mental Health Counselors Association (AMHCA). According to the September, 1992, American Counseling Association (formerly American Association of Counseling and Development) organizational affiliates membership report, AMHCA reported a membership of 11,257 (Sacks, J., 1992). The office of AMHCA noted that 1991 membership statistics reflected 67% of the membership to be women (Conversation with Ms. Mary L.

Pike, Administrative Executive Director, AMHCA on September 2, 1992).

Demographic data on the sample of mental health counselors were collected by questionnaire (Appendix B). Descriptors for gender, age, marital status, and ethnicity were the same as those utilized for the clergy sample. Tenure in profession was determined by length of membership in AMHCA. Type of service was described by subject selection of one of the following positions which best described the primary work responsibility: (a) counselor/direct services or (b) administrator/educator. The same open-ended questions were also provided for counselor feedback.

The research instrument was mailed to 500 subjects in each of the survey populations. The survey population for P.C. (U.S.A.) clergy was computer-generated by the denomination's Research Services Office of the Stewardship and Communication Ministry Unit. The survey population of mental health counselors was generated by AMHCA's administrative offices.

Both survey populations were randomly selected utilizing a stratification procedure. In order to account for the differences in gender within and between the two comparison populations and specifically address the associations by gender, the respective survey populations consisted of an equal number of randomly selected men and women. Therefore, the samples for both clergy and counselor survey populations included 250 men and 250 women. For purposes of this research, a minimum of 200 respondents comprised the research sample for each group.

Research Instrumentation

The research instrument for this study was comprised of three components: a demographic questionnaire, a self-report measure of depression, and a self-report assessment of dysfunctional attitudes. The Center of Epidemiological Studies' Depression Scale (CES-D) (Appendix C) was utilized to measure the level of symptoms associated with the syndrome of depression. The Dysfunctional Attitudes Scale (DAS)(Appendix D) assessed the presence of dysfunctional schema associated with depression. This section will discuss the rationale for selecting the CES-D to measure the dependent variable and the DAS to assess the independent variable, dysfunctional attitudes. Moderating variables (i.e., gender, age, racial/ethnic background, tenure in profession, marital status, and type of service) were surveyed in the demographic questionnaire (Appendices A & B).

The following discussion also includes consideration of test design for theoretical constructs, the efficacy of self-report measurement strategy, and the purpose and description of the respective measures. Evidence for the reliability, validity, and potential limitations of the CES-D and DAS are reviewed.

Rationale for Instrument Selection

The purpose of this study called for self-report measures of psychological constructs, namely, depression and dysfunctional attitudes. A reasonably accurate measurement of such constructs requires the use of instruments based on principles underlying efficient test development and measurement (e.g., concern for the

nature of the constructs, operationalization of terms, and the psychometric properties inherent in the measures).

Psychological constructs such as depression and dysfunctional attitudes represent categories of behavior on which individuals vary. Further, they are covert entities which are subject to hypothetical inquiry and imagination. Such constructs become valuable insofar as they assist the interaction between persons and environment and refine the theoretical systems which shape their substance (Crocker & Algina, 1986). From a clinical perspective, a measurement of psychological constructs may serve to screen, enhance problem identification and analysis, select treatment, and evaluate outcome (Barrios, 1988).

Although the research undertaken in this study did not entail the application of treatment, a concern for the future usage of the data to structure screening and intervention strategies dictates careful consideration of measurement strategies. In summary, the instruments for this research were selected for their congruence with Beck's (1967) theoretical framework and their capacity to yield results as valid and reliable as possible.

Self-Report Strategy

The utilization of self-report as a strategy for the measure of psychological constructs is widely used, but not without special considerations. Self-report techniques are based upon the phenomenological principle which proposes an individual's perspective on reality is seminal to understanding his or her world view. The individual is viewed as not only the primary but the best

source for this information (Anastasi, 1986). Obtaining an accurate sample of this subjective perspective becomes the focus for measurement.

The validity of cognitive assessment poses special consideration. Discussion in the research literature centers on the capacity of a person to accurately report causal explanations of their behavior without being predisposed by a biased frame of experience. The current refinement of cognitive self-report procedures advocates the importance of differentiating between the person's reporting data and drawing causal inferences (Merluzzi & Boltwood, 1989). The design for this research did not require verbal cognitive recall by interview. However, it is appropriate to acknowledge individual tendencies to draw causal inferences may affect response in the written self-report format. Therefore, the following recommendations by Merluzzi and Boltwood (1989) to reduce distortion in subject response were incorporated.

1. Probing for data were kept to a minimum to decrease tendencies to assign causal relationships.

2. Consideration was given to strong internal consistency in the measurement process to insure constructs are well focused.

3. Measures were selected which provide pertinent retrieval cues easily recognized and understood by the survey populations' field of experience.

Additional factors may also influence the accuracy and efficiency of self-report strategies. These include the subject's ability to understand what is being requested, the availability of data for

immediate recall, a will to self-disclose, subjects' cognitive capacity to respond, a facility for attending to the past, perception of relevance, and ability to introspect (Laing, 1988; Osberg, 1989). Notwithstanding these concerns for self-report assessment, according to Merluzzi and Boltwood (1989), rigorous attention in the selection of instruments and procedures for collecting data can produce findings which are as consistent as other more direct (observer-based) and costly procedures.

Efficiency and Effectiveness of Measurement

The efficiency and effectiveness of measurement is a function of a test to reliably and validly measure what it purports to sample. The selection of measures for this study incorporates concerns for the reliability and validity issues associated with competent testing. For purposes of this research, reliability was understood to be the consistency of the subject's deviation score over repeated administration of the test (Crocker & Algina, 1986). Validity in the measurement refers to the degree it is possible for one to reasonably generalize scores from one instrument to another purporting to measure like phenomena (Barrios, 1988). Several specific forms of reliability and validity are discussed for their relevance to the CES-D and DAS as applied to this research.

Reliability. The use of alternate forms of a test requires procedures for identifying the equivalence of such forms. The DAS possesses alternate or short forms. Although no hard rules exist on the minimal reliability standards on alternate forms, estimates in the

.80 to .90 range are viewed as acceptable tolerances on many standardized instruments (Anastasi, 1988).

Where single administration is employed, as was the case with this study, procedures are incorporated to enhance the confidence that a person's score may be generalized to the larger domain of interest. These procedures assess reliability based on the intercorrelations of items within the instrument. Examination of this internal consistency reveals both the homogeneity and quality of the items comprising the test (Crocker & Algina, 1986).

Estimates of internal consistency along with the methodology for deriving the coefficients were reported on the tests utilized in this study (e.g., coefficient alpha, KR20, KR21). Further, while this research did not require multiple applications of the CES-D or DAS, references to test-retest reliability estimates will be reported where given in the literature.

Validity. The second major psychometric property considered in this discussion is test validity, or the capacity of the test to measure what it claims. Validity allows for the cross inference of scores between instruments and behaviors under study (Barrios, 1988). It is important to note that while high test reliability is necessary for consistent assessment, it does not assure validity of measure. The validity data indicate the sensitivity of the CES-D and DAS as measures of their targeted constructs.

In the process of construct validation, emphasis is placed on operationalizing the particular psychological trait under study. Several forms of construct validation are reported as evidence for

validity. Factor analysis is used to determine underlying variables within a test which account for score variances. Multitrait-multimethod approaches are reported to indicate the degree to which several tests measure the same construct and how a single measure predictably reflects shared score correlations based on similar theoretical systems (Crocker & Algina, 1986).

Construct validation may also be accomplished by determining correlational evidence between the construct under study and an affected behavior or trait (e.g, level of depression and job productivity). This correlational procedure is central to this research as it explores evidence for a relationship between dysfunctional attitudes and the existing state of depression in the comparison populations. Additional validation of the constructs can be produced by comparing different groups to determine the direction or specificity of relationships.

Criterion-related validity is the ability of the measure to predict future or concurrent criterion behavior based on a predetermined predictor. This study attempted within its scope and limitations to determine to what degree dysfunctional attitudes predicted levels of depression in the comparison populations. Limited evidence is available in the literature on the criterion validity of the CES-D and DAS.

An important dimension of this study was the capacity of the CES-D and DAS to measure the current state of depression and presence of dysfunctional attitudes. The DAS is utilized primarily as a research tool to elucidate attitudes which evolve from Beck's

(1967) theory on depression and dysfunctional thinking processes. Because these attitudes are underlying products of cognitive structure, they are much more difficult to behaviorally operationalize. Nevertheless, assessment of attitudes is accomplished in logical relationships to the other components in the theory. The state of depression is assumed theoretically to be a sequelae of the presence of the dysfunctional schema. In similar fashion, the content of the schema was deduced from observation and conversation with depressed persons (Beck, 1967; Beck et al., 1979).

The CES-D has been used for clinical and research purposes. It is designed to assess symptoms associated with the syndrome of depression as defined in the DSMIII-R (American Psychiatric Association, 1987). Clinical instruments used for diagnostic purposes require a high degree of concurrent validity. Test scores are to reflect the state of targeted symptoms present at the time of administration. Evidence from the research literature discussed in this chapter establishes the credibility of the CES-D as a clinical and research instrument used with diverse populations.

Purpose and Description of the Measures

The discussion of the purposes for which the tests are designed includes a differentiation between clinical and research usage. Clinical applications require a high sensitivity or ability to correctly detect a large percentage of individuals who meet diagnostic criteria, in this case depression. Low sensitivity or the percentage of persons identified as nondepressed is less critical in that any false positives would likely be identified upon further assessment. Research such

as this study which utilizes normal populations seeks to identify persons who would be comparable to those who receive a clinical diagnosis. It is important, therefore, the test be highly sensitive to guard against excessive false positive findings which would skew the direction of the relationships of factors under study. These distinctions become increasingly useful when incorporating an instrument like the CES-D which is applied in both clinical and research realms. It is important to assure the test demonstrates the qualities which form the basis of high sensitivity, namely, high construct and concurrent validity (Barrera & Jones, 1988).

The Center for Epidemiological Studies' Depression Scale. The CES-D (Appendix C) was developed by the Center for Epidemiological Studies of National Institute of Mental Health. It was designed to identify groups with significant symptoms of depression in the general population (Radloff, 1977). The purpose of the scale is to measure the current level of symptoms associated with the syndrome of depression across diagnostic domains. The scale has been used in clinical, psychiatric, and general populations. According to Radloff (1977), the CES-D was specifically designed for use in studies of the relationships between depression and other variables across subpopulations. In contrast to instruments used primarily for clinical purposes (e.g., the Beck Depression Inventory), the CES-D has been utilized most notably to identify "probable" cases of depression rather than the severity of the disorder (Corcoran & Fischer, 1987; Rehm, 1988; Wells, 1985).

The CES-D is a 20-item self-report questionnaire which can also be implemented in an interview format. Zimmerman (1983) emphasizes the need for a self-report measure like the CES-D to measure accurately the components which comprise a targeted syndrome. Accordingly, the CES-D item content targets the following areas of the syndrome of depression: depressive mood and crying, positive affect (reverse scored), vegetative psychomotor symptoms (e.g., suppressed appetite), and interpersonal difficulty (Wells, 1985). Items are first-person statements which describe a relatively specific symptom of depression (e.g., "I had trouble keeping my mind on what I was doing"). The language used is in common parlance and avoids terms which may evoke a subject response bias (e.g., troubled, distressed). The CES-D does not assess directly ideation associated with suicidality (Rehm, 1988; Wells, 1985).

Item content for the CES-D was selected from instruments previously validated as measures of depressive symptomatology, the Minnesota Multiphasic Personality Inventory-D (Dahlstrom & Welsch, 1960), the Beck Depression Inventory (Beck et al., 1961), and Zung's (1965) Self-Rating Depression Scale. The authors of the scale attempted to sample depressed mood, guilt feelings, a sense of worthlessness and hopelessness, loss of appetite, disruption of sleep, and psychomotor retardation (Radloff, 1977; Rehm, 1988). The scale's emphasis is placed on the "current state" of symptom experience. Subjects are directed to indicate the level of symptom presence and severity within the past week.

According to Rehm (1988), when the CES-D is viewed in terms of the syndrome components (i.e., affect, verbal-cognitive, behavioral, somatic, and social interpersonal), it is weighted in focus on the affective content. Of the 20 items on the measure, eight screen for affect, four for other cognitive symptoms, four for behavioral items, and two for somatic and social interpersonal. There is no assessment of suicidality or sexual dysfunction.

Ratings for the scale are constructed on a 0-3 scale anchored in the following way: 0 = rarely or none of the time (less than 1 day), 1 = some or a little of the time (1-2 days), 2 = occasionally or a moderate amount of the time (3-4 days), 3 = most or all of the time (5-7 days). Sixteen of the items describe negative symptoms while four are stated in a positive direction to avoid a response set. A total score range of 0 to 60 is possible with each question rated on a 0 to 3 point scale. Items 4, 8, 12, and 16 are reverse scored. Higher scores indicate more symptom presence which is weighted by frequency of occurrence (Corcoran & Fischer, 1987).

In a study of the structure of the CES-D, Liang (1989) explored the feasibility of utilizing subdimensional scoring. Liang concluded that if the CES-D is to be used as an index of nonspecific depressive symptoms, for analytical and practical purposes differentiation in terms of subscales is not necessary, a total score being most efficient.

A cutoff score of 16 for the CES-D was established in the initial studies by Radloff (1977). Twenty-one percent and 70% of the general and psychiatric populations, respectively, scored at or above the level of 16. Interscale correlations with other measures utilized

in the assessment of depression, both self-report, interview, and observational-based, have proved to be highest at this point of discrimination.

Subsequent studies have further validated this initial cutoff score (Boyd, Weissman, Thompson, & Myers, 1982; Craig & Van Natta, 1973; Craig & Van Natta, 1978; Comstock & Helsing, 1976; Iwata, 1989; Weissman & Locke, 1975). Lewinsohn, Zeiss, and Duncan (1989) utilized a cutoff score of 17 to increase high-end sensitivity in a study of probability of relapse after recovery. Shaw, Vallis, and McCabe (1985) reported a study conducted by Husaini, Neff, Harrington, Hughes, and Stone in 1980 in which cutoff scores of 17 for "possible" and 23 for "probable" case identification were utilized. The preponderance of evidence suggests, however, a total score of 16 best differentiates between high- and low-symptom scores in the general population.

It is important to note the CES-D is a measure of symptoms associated with the syndrome of depression. The sensitivity of the CES-D for identifying all depressive disorders in outpatients was reported by Radloff (1977) at 91%. Myers and Weissman (1980), however, found a sensitivity of 64% in the general population. Boyd et al. (1982) suggested this disparity between the CES-D and interview scores may be a function of techniques which resulted in the diminished rate of identification. Accordingly, false negatives could be explained by nay-saying subjects who affirmed an item during interview but answered in the negative on the CES-D, a difficulty in language usage, subject learning impairments, or the

ineffective operationalization of the concept of role impairment in the assessment. They also reported a CES-D specificity of 94%. That is, 94 out of 100 people identified as depressed by their CES-D scores were also concurrently diagnosed as such by the Rockliff Depression Rating Scale (Rockliff, 1971).

Weissman, Shalomskas, Pottenger, Prusoff, and Locke (1977b) in a study of five psychiatric populations found the CES-D to be sensitive to changes in symptom levels over the course of time and recovery. It was also established that the CES-D was sensitive to the differences between acute, short-term and chronic, long-term depressive episodes (Craig & Van Natta, 1976a; 1978; Weissman et al., 1977b).

In summary, the populations on which the CES-D was administered in this research were consistent with the test's design, purpose and sensitivities.

The Dysfunctional Attitudes Scale (Weissman & Beck, 1978). The DAS is a self-report questionnaire designed to indicate negative attitudes or schema associated with Beck's cognitive theory of depression. The items represent seven major value systems identified by Beck et al. (1961): (a) the need for approval, (b) the need for love, (c) the desire for achievement, (d) a drive for perfectionism, (e) a sense of entitlement, (f) the need for control or omnipotence, and (g) the need for autonomy. Each item in the measure presents a negative schema such as, "I cannot be happy unless I know people admire me." The items are rated on a 7-point Likert scale ranging from 1 (totally disagree) to 7 (totally agree). It

is possible to isolate the specific negative beliefs based on subtest discrimination and total point scores (Merluzzi & Boltwood, 1989).

Three forms of the DAS exist with psychometric data available on each. The original form, the DAS-T, consists of 100 questions with a total score range of 100 to 700. Alternate forms A and B consist of 40 items each with score ranges of 40 to 280. Higher scores are indicative of the presence of negative schema associated with depression (Parks & Hollon, 1988).

The outcomes of studies establishing mean scores for the DAS yield several impressions. A mean score of 113 is reported by Corcoran and Fischer (1987). Oliver and Baumgart (1985) established a mean of 100 on an unselected adult population. Peselow et al. (1985) identified initial means of 151.4 and 99.46, respectively, in a study of depressed patients and control subjects. In a study of normal nonclinical college students, Dobson and Breiter (1983) identified means of 89.77 for males and 88.12 for females. An administration of the DAS to hospital patients diagnosed with major depression, nondepressed psychiatric patients, and nonpsychiatric patients established respective means of 146.8, 113.5, and 112.35 (Dobson & Shaw, 1986). The results of these inquiries suggest normal population means falling in a band between 90 and 113. Each of the above studies was conducted utilizing the DAS alternate forms.

In summary, the purpose of the DAS is to capture the prevalence of negative belief or schema associated with depression. These attitudes form the cognitive structure of Beck's theory of

depression. The DAS distinguishes these attitudes, the underlying foundation of beliefs in one worldview, from the more manifest stream of conscious material or cognitive events. The purpose of this study, its theoretical basis, and the target populations incorporated in the research justified use of the DAS as a component of the data collection instrument.

Usage of the CES-D and DAS in the Literature

The CES-D has been utilized in a variety of contexts to research the relationship between depression and various independent variables. It has been particularly useful in epidemiological studies with large-scale populations involving several thousand subjects (Anda, 1990; Blazer, 1991; Boyd et al, 1982; Comstock & Helsing, 1976; Craig & Van Natta, 1976a, 1978; Radloff, 1977).

Because the validity and reliability of the CES-D across subpopulations has been efficient, it has also been used in research focused on particular populations (Corcoran & Fischer, 1987). Roberts (1980) assessed the utility of the CES-D in corroborating evidence of depression in anglo, black, and Mexican-Americans. Blazer (1991) used the instrument to confirm the increase in prevalence rates of depression in an elderly population aged 65 and over. Garrison (1991) and Schoenbach (1988) incorporated the CES-D in assessing the presence and severity of depression in adolescents.

Cross-cultural applications of the CES-D have included a variety of American minority and international cultures. Guarnaccia (1989) and Liang (1989) studied levels of depression in Hispanic and Mexican-American populations, respectively. Perez-Stable (1990)

also examined depression levels in the Latino population of San Francisco. Iwata (1989) utilized the CES-D to measure the relationship of depression and the workplace in the Japanese culture. With the CES-D, Ostrow (1989) examined the relationship between HIV+ symptoms and depression in a population of homosexual males.

The preponderance of studies which have incorporated the CES-D have examined gender as an independent factor, thereby adding evidence to the validity of the instrument on this variable (Rehm, 1988; Wells, 1985). Additionally, its usage in general population studies has resulted in the analyses of a number of demographic variables including race and ethnicity (Anda, 1990; Guarnaccia, 1989; Iwata, 1990; Liang, 1989; Perez-Stable, 1990), age (Boyd et al., 1982; Radloff, 1977), social class (Repetti, 1980), and marital status (Kanefield, 1983; Pruchno & Resch, 1989; Ross & Mirowsky, 1984).

A survey of other independent variables analyzed in conjunction with the CES-D include relapse after recovery from depression (Lewinsohn et al., 1989), the relationship of physical illness and depression in hospitalized and nonhospitalized subjects (Goldberg, Comstock, & Hornstra, 1979), psychiatric inpatient status (Weissman, Pottenger, Kleber, Ruben, Williams, & Thompson, 1977a; Weissman et al., 1977b), smoking behaviors (Anda, 1990), mothers of infants (Cohn, 1987), burnout in teachers (Schonfeld, 1990), psychiatric inpatient and community at-large status (Craig & Van Natta, 1973; 1976a) and mothers of young children (Hall, 1988).

Additional variables included in studies which have utilized the CES-D as an assessment of depression symptom level include the effect of occupational setting (Iwata, 1989), family and work roles (Kanefield, 1983), self-rating and observation-based diagnostic techniques (Lewinsohn et al., 1989), hip fracture as a corollary of depression (Mossey, 1990), symptoms associated with HIV+ status (Ostrow, 1989), cigarette smoking (Perez-Stable, 1990), husbands and wives as caregivers (Pruchno & Resch, 1989), social class and employment status (Repetti, 1980), and marital status and components of depressed mood (Ross & Mirowsky, 1984).

The DAS as a measure of depressive cognitions has been utilized as a corollary instrument in studies which incorporate Beck's theory of cognition (see Bowers, 1980; Keller, 1983). Additional research topics which have incorporated the DAS include a comparison of cognitive assessment instruments for depression (Dobson & Breiter, 1983; Dobson & Shaw, 1986), studies of suicidal ideation (Ellis & Ratliff, 1986; Ranieri et al., 1987), dysfunctional cognitions associated with eating disorders (Goebel et al., 1989), cognitive patterns in a longitudinal study of hospitalized patients with major depressive disorder (Hamilton & Abramson, 1983), attitudes and a self-worth contingency model of depression (Kuiper & Olinger, 1986; Kuiper, Olinger, & Swallow, 1987), self-schema consolidation and depression (MacDonald et al., 1985; Parker et al., 1984), and a study of depressive subtypes (Peselow et al., 1990).

The DAS has also been used in the study of attitudes in unselected adult populations (Oliver & Baumgart, 1986) and college

students (Zemore & Veikle, 1989), a study on the effects of treatment on dysfunctional attitudes (Peselow et al., 1990), the relationship of attitude change in drug treatment and follow-up (Reda, Carpinello, Secchiaroli, & Blanco, 1985), the effects of judgement on similarity between self and others (Swallow & Kuiper, 1987), and the comparison of dysfunctional attitudes in healthy controls, schizophrenia, and psychotic and nonpsychotic depressive subtypes (Zimmerman, Coryell, Corenthal, & Wilson, 1986).

The breadth of research in which the DAS has been incorporated reflects the current state of interest in cognitive theory and its sphere of application. Berluzzi and Boltwood (1989) suggested the advancement of cognitive assessment, however, depends on continued studies which further elaborate the reliability and validity of the field's theoretical constructs and measurement techniques. This research sought to further examine Beck's (1967) ideas regarding the effects of dysfunctional cognitions on depression. The express purpose of this study was to explore the strength of association of dysfunctional schema and depression in a population whose self-proclaimed belief system appeared to contradict the formation of such depressogenic cognitions.

Evidence for the Validity and Reliability of the Measures

The Center for Epidemiological Studies' Depression Scale. As noted earlier, the CES-D serves as a self-report instrument and measure utilized in the research of depression and its corollary constructs. The purpose of the measure requires significant attention to construct and concurrent validity, the latter especially for

differentiating between probable and nonprobable cases of depression. Items on the CES-D were logically developed to fit the affective, behavioral, and cognitive aspects of the DSMIII-R criteria for syndrome depression. One procedure for establishing construct validation is through the measure of differences between known groups. In this instance the known groups have been diagnosed as either depressed or normal control samples. The CES-D has been found to discriminate between clinical and normal populations (Radloff, 1977), depressed and nondepressed psychiatric inpatients (Craig & Van Natta, 1973), inpatient and community controls in a study on the persistence of symptoms (Craig & Van Natta, 1976a), and within the general population subjects who were depressed and utilizing medications (Craig & Van Natta, 1978).

In a study of depressed affect in psychiatric patients, Craig and Van Natta (1976b) established that scores on the CES-D differentiated between depressive subtypes (i.e., depressive neurosis, affective psychosis, and a more general catchment of mood). Similarly, Lewinsohn, and Teri (1982) reported CES-D scores distinguished between self-rated depressives and nondepressives. Weissman et al.(1977a, 1977b) found the test's scores discriminated between psychiatric and community controls. Acutely depressed patients were also differentiated from subjects with other psychiatric diagnosis (Weissman et al., 1977b). Additionally, results from the same study confirmed the CES-D scores substantiated differences between subgroups within categories (e.g., alcoholics, drug addicts, schizophrenics). Acutely depressed persons were also found to

report more elevated scores on the CES-D than were concurrently diagnosed recovered depressives. In a study of life stress and motherhood, on the basis of CES-D scores Hall (1982) discriminated between high stress, probable cases of depression in mothers with young children and their normal cohorts.

Construct validity is also evidenced through the process of factor analysis, the technique of identifying underlying variables which explain variance. Radloff (1977) established four principle components with an eigenvalue exceeding the value of 1. These factors accounted for 48% of the CES-D variance. A varimax rotation yielded the following factors: depressed affect (e.g., blues, depressed, lonely, tearfully sad), positive affect (e.g., good, hopeful, happy, enjoyable), somatic and retarded psychomotor activity (e.g., diminished appetite, reduced energy, disrupted sleep, concentration), and interpersonal (e.g., unfriendly, dislikes). Based on the high internal consistency in the scale and item content which targets a specific syndrome of behaviors, Radloff recommended the use of a total score as an estimate on the degree of prevalence in depressive symptoms (Radloff, 1977).

Subsequent studies have confirmed the presence of the four factors (Liang, 1989; Orme, Reis, & Herz, 1986; Roberts, 1980; Ross & Mirowsky, 1984). The equivalence of factors in the CES-D across populations (e.g., gender, race, ethnicity) has been found to be quite consistent (Roberts, 1980; Orme et al., 1986). Guranaccio (1989) established some variance in factors within a subpopulation study of Hispanic persons. Differences by gender and language amongst

Mexican-Americans, Puerto Ricans, and Cuban-Americans were identified when the CES-D was used in an interview format. Ross and Mirowsky (1984) also found the four factors of the CES-D generalized across gender in married couples except for items describing the prevalence of crying spells and feeling that one's life is a failure.

There is some evidence to suggest the CES-D also measures generalized anxiety (Breslau, 1985; Murphy, 1980). This may explain some part of that variance which is unaccounted for in the instrument. Further, since depression is associated with some degree of anxiety, this is not inconsistent with the purpose and appropriate usage of the instrument. Accordingly, Myers and Weissman (1980) suggested the CES-D factors are most useful for the screening of persons in research and as a rough indicator of clinical depression in the community.

A significant factor in establishing concurrent validity is the definition of construct and measurable criterion. As noted earlier, the CES-D is a measure of symptoms associated with the syndrome of depression. A number of researchers have compared scores on the CES-D with those of other tests or clinical interviews which were concurrently administered. It is from these studies the preponderance of evidence for concurrent validity stems. Radloff (1977) reported the CES-D was correlated positively in concurrent measures with the following instruments: .70 with the Depression Adjective Checklist (DACL) (Lubin, 1967), .55 with the Bradburn Balance (Bradburn, 1969), .72 with the Bradburn Negative Affect (Bradburn, 1969), .74 with the Cantril Ladder (Cantril, 1963), and .60

with the Langer scale (Langer, 1962). In the same study CES-D scores were positively related to the following clinical interview procedures: .56 with a nurse clinician interview on severity of symptoms and .44 and .54, respectively, with the Hamilton Rating Scale on Depression (HRSD) (Hamilton, 1960) and Raskin Rating Scale (RAS) (Raskin, Schulterbrandt, Keating, & Mckeon, 1969) upon admission. After 4 weeks the CES-D correlated at .69 and .75 with the HRSD and RAS, respectively.

Radloff (1977) reported a coefficient of .83 with the Symptom Checklist (SCL-90) (Derogatis, 1977) in the New Haven sample. He also found the CES-D to negatively correlate at .55 with the Bradburn Positive Affect (Bradburn, 1969) and to describe a very low -.20 relationship with the Marlowe-Crowne Social Desirability measure.

In a study of inpatient psychiatric patients, Craig and Van Natta (1976b) established that CES-D scores were positively associated with the Cantril Ladder (.47) and DACL (.49) in diagnosed depressive neurosis and .86 and .49, respectively, in diagnosed affective psychosis patients. Using the Depression Rating Scale (Rockliff, 1971), the CES-D correlated .74 with the affective psychosis and .48 with depressive neurosis and described virtually no correlation with the diagnosis of schizophrenia.

Weissman, Prusoff, and Newberry (1975) also described positive correlation coefficients of .90 with the Zung's (1965) Self-Report Depression Scale and .81 with the Beck Depression Inventory (Beck et al., 1961). Goldberg et al. (1979) reported a significant positive relationship between CES-D scores and the DACL in a study

of depressed mood and subsequent physical illness. Similarly, Lewinsohn and Teri (1982) found the CES-D scores to positively correlate .63 in patients who self-described as depressed over a period of 11 months.

Modest positive correlations with measures of self-esteem and anxiety, the higher coefficient being associated with trait anxiety, were established by Orme et al. (1986). Murphy also found CES-D scores to be associated with the Hamilton Anxiety Rating Scale (Hamilton, 1959). This is an indication the CES-D may pick up more general psychopathology which may be associated with depression. Shaw, Vallis, and McCabe (1985) advocate, therefore, the CES-D may be best suited for initial screening for possible cases of depression and followed by secondary techniques to further differentiate type and level of severity.

The reporting of reliability data is determined by the specific use of the measure. This research did not require test-retest procedures. Concerns for stability, however, or the test's capacity to accurately replicate a measure of depressive state and underlying cognitive structures, were a consideration in measurement choice. Of significant concern in this study were estimates of internal consistency, that is, the degree to which items covaried with one another in the respective tests.

The internal consistency of the CES-D is high. Radloff (1977) reported split-half coefficients of .85 for patient populations and .77 for normal groups. Coefficient alpha and Spearman-Brown coefficients, respectively, were .90 and .92 for patient groups and .85

and .87 for normal populations. Corcoran and Fischer (1987) describe a range of split-half and Spearman-Brown coefficients from .77 to .92. Notably, an instrument as brief as the CES-D with 20 items may be expected to have more moderate reliability coefficients. It is significant the CES-D demonstrates efficient internal consistency when utilized with sample sizes in the thousands.

Test-retest reliability coefficients are reported in intervals of 2, 4, 6, and 8 weeks and 3, 6, 9, and 12 months. Rehm (1988) noted that a scale targeted to assess fluctuation in mood-related symptoms may be expected to demonstrate modest coefficients. Overall test-retest statistics for the CES-D average .57 . A 1-year test-retest coefficient of .32 was reported (Rehm, 1988). These coefficients are elevated in persons not experiencing intermittent life crises. Wells (1985) described coefficient ranges of .51 to .67 from 2 to 8 weeks and .32 to .54 for 3 to 12 months. Radloff (1977) reported positive test-retest coefficients at the following intervals: 2 weeks (.51), 4 weeks (.67), 6 weeks (.59), and 8 weeks (.59) with an average across intervals of .57.

In summary, evidence for construct and concurrent validity as well as the internal consistency of the CES-D appropriate to the purposes of this research are well documented in the literature. The inclusion of the CES-D as a component in the research instrument of this study was also consistent with its widespread use in research on depression and its utility in application with general populations.

The Dysfunctional Attitude Scale. The DAS does not enjoy the same breadth of research application as does the CES-D. This may be attributed to the instrument's relative newness in the field of cognitive theory and the few studies assessing the impact and role of attitudes. Corcoran's (1987) description of the DAS reported known group validity in studies discriminating between populations diagnosed as depressed or nondepressed on the Beck Depression Inventory (BDI) (Beck et al., 1961). The DAS was found to be sensitive to differences between psychotic and nonpsychotic depressives and normals as well as schizophrenics and controls by Zimmerman et al. (1986). Ellis and Ratliff (1986) and Ranieri (1987) differentiated between suicide-prone and nonsuicidal persons based on DAS scores. Reda et al. (1985) established differences on DAS scores for recovered and nonrecovered depressed persons being treated with Amitriptyline. Oliver and Baumgart (1985) and Peselow et al. (1990) confirmed DAS discrimination between depressed and nondepressed control groups. Melancholic and nonmelancholic depression was studied by Norman et al. (1987) with DAS scores describing differences between the two groups. The DAS was also found to be sensitive to distinctions between persons diagnosed with eating disorders and normals (Goebel et al., 1989). MacDonald et al. (1985) and Kuiper et al. (1987) differentiated on DAS scores between individuals considered vulnerable and nonvulnerable yet depressive prone.

Factor analysis of the DAS alternate forms by Parker et al. (1984) yielded four factors accounting for 36% and 33% of the

variance in forms A and B, respectively. The factors in order of the variance explained are (a) externalized self-esteem, (b) anaclitic self-esteem (dependence on others for self-affirmation), (c) tentativeness as concern for being criticized, and (d) need for approval. Oliver and Baumgart (1985) also described four factors in a varimax rotated solution. Factors in Form A included the need for approval, perfectionism, avoidance of risks, and a nonidentifiable factor. Form B factors described were the need for success, need to impress others, a need to control feelings, and an unidentifiable fourth factor. No variance data were reported in that study. The DAS-T was recommended because of its lack of factoral equivalence. Higher coefficient alphas and their near equivalence of factors, however, suggest Form A to be the most efficient overall measure of the alternate forms. Ranieri et al. (1987) in a study of suicide ideation found the attitudes in the DAS which explained 77% of the variance were related to perfectionism, sensitivity, and sensitivity to social criticism. In a study of cognitive characteristics of suicidal and nonsuicidal psychotic patients, Ellis and Ratliff (1986) reported the DAS demonstrated the highest discrimination function when correlated with the Hopelessness Scale and Irrational Beliefs Test.

Evidence for concurrent validity is based on the claim the DAS is a measure of predisposition to depression. Logically, higher scores on other measures of depression would correlate with the DAS. Dobson and Shaw (1986) reported coefficients of .59, .64, and .78 with the HRSD, BDI, and Automatic Thoughts Questionnaire (ATQ), respectively. Reda et al. (1985) established a correlation of .71 with

the HRSD. Coefficients of .50 with the BDI and .46 with the DPRS were found by Zemore and Veikle (1989) in a study of depression proneness in college women. Oliver and Baumgart (1985) described a .54 correlation with the BDI in an unselected adult population with coefficients of .65 and .56 for men and women, respectively. In the same study the DAS correlated .76 with the Dependency Subscale Mood States and .69 with the Measure of Distorted Depressed Cognitions. Reda et al. (1985) described a positive coefficient of .71 with the HRSD. In an Australian study Bradshaw and Blignaut (1984) established modest correlations of .36 and .26 of forms A and B, respectively, with the Zung.

The DAS has been researched as a predictor for depression. The establishment of predictive validity is seminal for cognitive processes hypothesized as precursors for clinical pathology. Keller (1983) and Peselow et al. (1990) found that persons with higher DAS scores tended to respond less well to therapy. Results of studies by Norman et al. (1987) and Parker et al. (1984) indicated higher DAS scores were correlated with increased severity of depression. Additionally, Swallow and Kuiper (1987) established that elevated DAS scores were associated with increased negative self-judgment as scores on the depression specific test increased. Studies by Ranieri et al. (1987) and Ellis and Ratliff (1986) indicated higher DAS scores were related to increases in ideation associated with suicide lethality.

Several caveats about the use of the DAS as a predictor are worthy of note. The DAS appears to be more sensitive to nonendogenous depressions (Giles & Rush, 1982; Norman et al., 1987;

Zimmerman & Coryell, 1986). Similarly, Goebel et al. (1989) found the DAS to be a predictor of bulimia but not of its severity. As a measure of enduring traits, DAS scores were hypothesized to be relatively stable. Several studies have, however, reported changes in DAS scores over the course of treatment (Bowers, 1990; Hamilton & Abramson, 1983; Peselow et al., 1990). Kuiper et al. (1987) have hypothesized that the changes in DAS scores are associated with the deactivation of dysfunctional schema related to the cognitive triad, increased clarity of self-evaluation due to the remission of depressive symptoms, effects of treatment aimed at altering pathogenic attitudes, or the deactivation of attitudes based on the status of self-worth contingency contracts.

Reliability coefficients on the DAS are available for internal consistency and stability. Cronbach's alphas have been reported in a number of studies: .90 (Zemore & Veikle, 1989); .90 and .88 for males and females, respectively (Dobson & Breiter, 1983); in a study of normals, psychiatric control group, and depressed patients, alphas of .87, .93, and .91, respectively (Dobson & Shaw, 1986); alphas of .90, .85, and .81 for the DAS-T and forms A and B, respectively, (Oliver & Baumgart, 1985).

Stability measures have been reported in a range from 2 weeks to 9 weeks. Results included .79 for 2 weeks (Oliver & Baumgart, 1985), .84 for 8 weeks (Dobson & Breiter, 1983), and .82 for 9 weeks by Zemore and Veikle (1989).

The high internal consistency estimates and evidence of construct and concurrent validity were of singular importance to this

research. A modest positive correlation of the DAS and BDI suggests the strength of the theoretical and psychometric value of the DAS for this research. It is important to note the DAS was designed as a measure of underlying traits compared to the CES-D's focus on state. As suggested at the outset of this section, logically some correlation is to be expected between the DAS as a trait measure and a measure of state of depression. This relationship facilitated the purpose of this study to identify the more enduring qualities of pathogenic attitudes described by the DAS which may be present during a particular episode of depression as measured by the CES-D.

Additional Measurement Considerations

No evaluation of reading level for the CES-D or DAS was elucidated in the literature. However, their usage in general populations and undergraduate education suggests their suitability for the advanced college educated research samples in this study.

A modest negative correlation on the CES-D was reported by Radloff (1977) using the Marlowe-Crowne Social Desirability Scale. The instrument's sensitivity to the symptoms associated with components of depression were suggested to have some influence on response from depression vulnerable persons. No reports on sensitivity to social desirability in the DAS were found in the literature.

Both the CES-D and DAS have been administered in cross representational English-speaking samples of American society with no ill effects on the measurement properties. Further, studies on

validity have reported no significant detrimental relationships between scores by gender on the CES-D or DAS.

Administration of the CES-D and DAS are accomplished through self-report format with instructional guidance printed on the face sheet of each instrument describing the rating and Likert scale formats for choice. Practice sessions conducted by the principle investigator suggest the CES-D usually takes 8 to 10 minutes to complete. Shaw et al. (1985) recommend 10 to 15 minutes for administration of the CES-D. The DAS alternate form takes approximately 10 to 15 minutes. Completion of the research instrument as a whole, the CES-D, the DAS, and the demographic questionnaire, appears to be possible within a 30-minute framework.

Section Summary

Three general areas of concern are raised in undertaking measurement through self-report: the established theory base, relevant psychometric properties of the instruments, and the methodology of implementation. The choice of measures for this study is grounded in a theoretical framework, namely, Beck's (1963) cognitive theory of depression. Both the CES-D and DAS are logically derived extensions of constructs articulated by the theory base associated with depression. Demonstrated item construct validity has been predicated on the operationalization of the key constructs in theory.

Evidence in the literature supporting the psychometric properties of the CES-D and DAS was discussed. Each demonstrates evidence of appropriate and high-reliability estimates and validity

coefficients. Decision to use the DAS-A alternate form is taken while acknowledging its limitations when compared to the longer DAS-T. Consideration for the length of time required to complete the assessment and the higher internal consistency estimate when compared to form B suggest the appropriateness of this decision. The CES-D also exhibits strong psychometric properties and requires a reasonable administration time. Both the CES-D and DAS fulfilled this study's need for effectiveness, ease of administration, and comprehension in assessment.

Data Collection and Analysis

The cover letter and questionnaires were sent by first-class mail to the survey populations during the fourth week of February, 1993. This date fell between the celebration of the Fall and Spring religious holidays. The selection of this date represented an effort to avoid seasonal periods of higher work-related stressors associated with both the ministerial and mental health counselor professions.

During the third week of February, 1993, an announcement card (Appendix E) was sent by first-class mail to prepare the survey populations for receipt of the research instrument. One week following the mailing of the cover letter and questionnaires (Appendices C, D, & F), a follow-up card (Appendix G) was mailed to confirm receipt of the materials and encourage return of the questionnaires. In the event of an insufficient response rate, telephone follow-up was to be initiated to encourage return of the materials or, if misplaced or unreceived, facilitate the mailing of a new set of materials.

The analysis of the data was accomplished by utilizing the SAS General Linear Model (GLM). Two equations were entered into the model to address this study's eight research hypotheses. The first equation designated the current level of depression as measured by the CES-D as the criterion (dependent) variable. It tested hypotheses one through five for strength of associations and interactions on the predictor (independent) variables. Equation two designated the level of dysfunctional attitudes as the criterion variable and tested hypotheses six through eight for strength of associations and interactions on the predictor variables.

A minimum N of 400 was established in order to assure sufficient subjects for each variable under study in the equations. In the event of an inadequate response to a given category on a variable (less than 10 subjects), a decision model was utilized to combine or delete variables (e.g., marital type). Where plausible, the decision was based on theoretical assumptions or supportive evidence in the literature.

Limitations of the Study

Acquiring adequate respondents in each sample was important both for the efficiency of data analysis and generalization of results. The use of a random sampling procedure was incorporated to decrease the risk of creating initial biases in the survey population which could then be passed on to the research sample. This procedure was also utilized because a lack of equivalency existed in the demographic data kept on the comparative populations. Sampling proportionately on each demographic category could not be

efficiently achieved; therefore, the possibility existed some characteristics in the population (e.g., marital status, racial/ethnic makeup, type of service, and tenure) would be underrepresented. Were this the case, resultant limitations in the generalizability of outcomes to all aspects of the research populations could have occurred. The random sampling procedure was thought, however, to provide the most reasonable approach to developing samples which were representative of the demographic factors that characterized the research populations.

Both target populations were comprised of professionals who typically work within busy schedules. The research design utilized strategies to encourage completion of the research instrument (e.g., personalization of materials, reduced copy size, announcement, and follow-up mailouts). Busier professionals may be more prone to stress-related illness including depression. They may also be less motivated to complete the materials because of demand on personal time. Efforts were taken to minimize the time necessary for completion of the instrument in order to mitigate this concern.

The schedule for the data collection was designed to avoid what may be construed as "peak demand" periods on these populations. The goal was to sample the subjects at a time when a relatively normal baseline of experience could be obtained. Notwithstanding the targeted schedule, there may be some subjects whose seasonal demands or personal circumstances bias their response. In limited cases, adequate numbers of respondents and the random sampling strategy can mediate these influences.

Some limitations were inherent in the utilization of a self-report methodology. Care was taken to reduce these potential effects by not requiring causal inferences on the part of the subjects and selecting instruments which exhibit high and appropriate reliability estimates and validity coefficients. The measures were also deemed appropriate for the research populations' reading levels and demonstrated equivalency of measure across diverse cultural, gender and age samples.

Finally, there may be some reluctance on the part of sample subjects to self-disclose on a topic considered by some an indication of personal and professional vulnerability. Effort was made in the announcement, cover letter, and follow-up mailings to encourage subjects to view their participation as a meaningful contribution to our knowledge about helping professionals. Open-ended questions were also provided to allow participants' to contribute subjective feedback. Additionally, provisions for anonymity and confidentiality were made to assure privacy and enhance the likelihood of participation.

Chapter Summary

The purpose of this study was to apply the cognitive theory of depression proposed by Aaron Beck (1967) in an investigation of depression of Presbyterian (USA) ministers. Specifically, this research was conducted to ascertain through the use of the Dysfunctional Attitude Scale (Weissman & Beck, 1978) the presence and level of dysfunctional attitudes theorized to be associated with depression. Further, these attitudes were evaluated as predictors of

the current level of symptoms associated with the syndrome of depression as measured by the Center for Epidemiological Studies' Depression Scale (Radloff, 1977). In addition, this research endeavored to determine whether the levels of depression and dysfunctional attitudes in Presbyterian ministers occur at rates similar to a cohort of comparably trained professionals in a help-giving vocation, namely, mental health counselors.

This chapter contains descriptions of the methodology developed to collect and analyze data from Presbyterian ministers and mental health counselors. The research hypotheses, study design, and subjects were described. A rationale for the selection of the components of the research instrument was given with supporting evidence from the literature. Lastly, potential limitations to the study with corresponding considerations in the study design were described.

CHAPTER IV
DATA ANALYSIS AND RESULTS

Study and Chapter Overview

The purpose of this study was to apply the cognitive theory of depression proposed by Aaron Beck (1967) in an investigation of depression in Presbyterian (USA) ministers. Specifically, this research sought to ascertain through the use of the Dysfunctional Attitudes Scale (DAS) the presence and level of attitudes theorized by Beck to be associated with the syndrome of depression. These attitudes were evaluated as predictors of the current level of depression as measured by the Center for Epidemiological Studies--Depression Scale (CES-D) (Radloff, 1977). Additionally, this research sought to determine whether levels of depression and dysfunctional attitudes in Presbyterian ministers occurred at rates similar to a cohort of comparably trained professionals in a help-giving vocation, namely, mental health counselors.

In this chapter the procedures for data collection, associated rates of return, decision rules, data analysis, and results are discussed. Where possible, descriptive data are provided to characterize the sampling distributions and incorporation in the analysis. Reliability coefficients for the CES-D and DAS are reported. Finally, outcome testing of this study's research hypotheses are discussed.

Data Collection and Associated Response Rates

One thousand research booklets were sent to a computer-generated nationwide random sample. Five hundred were sent to Presbyterian (USA) ministers and 500 to counselors associated with the American Mental Health Counselors Association. Each research sample was stratified by gender. A minimum criterion of 200 returns for each survey sample was established to provide efficiency for data analysis. The research instrument was mailed out in a scheduled sequence which utilized metered, presorted, first-class postage with self-addressed return envelopes. Response was designed to be anonymous in nature.

The announcement cards (Appendix E) were mailed February, 17, 1993. One week later the research booklets (Appendices A, B, C, & D) were posted. A follow-up card (Appendix G) was mailed on March the 3rd. In order to avoid the potential for effects which may be associated with the Easter holidays, to be eligible for utilization in the analysis of data responses must have been received by March the 27th. This allowed 31 days for the return of the study's data. This period falls well within the 7-week sequence suggested by Dillman (1978) to provide for adequate return and follow-up. The more abbreviated schedule utilized in this study also avoided potential variance associated with the effects for personal or social history.

The total returns, including those which indicated no desire to participate or were received after the cutoff date, totaled 585. This represented 58.5% of all persons sampled. Five hundred forty-three

of the booklets were filled out. Two hundred seventy-eight (55.6%) were counselors and 265 (53.0%) clergy. Eighteen subjects, 16 of whom were ministers, indicated no desire to participate. Of the 24 booklets received after the deadline, 15 were ministers.

The cumulative rate of return for the booklets for weeks 1 through 4 was 185, 412, 501, and 543, respectively. Clergy accounted for 44% of the returns in week 1, 56% in week 2, 41.5% in week 3, and 49.9% in the final week. By the end of week 2, 412 or 70% of all the returns had been received.

The percentages of return by group over the 4-week period were remarkably similar. By the end of the first week 31% of the clergy and 37% of the counselor booklets had been received. Seventy-eight and 74%, respectively, were coded in during the second week. An increase in the week 3 response was probably attributable to the reception of the follow-up card. By that week's end, 92% of the clergy and 93% of the counselor total returns were recorded.

Had the past deadline booklets been added to the data analysis, the final count would have been 296 ministers and 289 counselors, 59.2% and 57.8% of their respective research samples. The 2.4% difference in usable, timely returns by group was gratifying given the nationwide nature of the sample. The minimum criterion of 200 booklets for each group was exceeded by both clergy (265) and counselors (278). The additional data contributed to strengthening the efficiency and power of the data analysis.

Of the booklets returned as undeliverable by the postal service, 17 booklets had expired forwarding addresses or no such identifiable

address for delivery. All of these returns were identified as ministers. The addresses provided by the Presbyterian (USA) denominational offices were the most current on record. Additionally, one counselor called to request the booklet following the reception of the announcement card but no initial delivery of the questionnaire. Two clergy were identified as deceased by remarks provided by members of the family. All but 1 of the 11 persons requesting results of the study were counselors.

Criticism was offered by two persons who chose not to participate. These included concerns that the cover letter was not on a sponsoring university's letterhead and that the research measures (CES-D & DAS) were poorly worded.

Decision Rules

Nine decision rules were employed to maximize the use of the return data and create standards by which to minimize coding error in establishing choices or scores which were absent or ambiguous in a questionnaire. In the demographic questionnaire (Appendices A & B), if neither or both gender choices were marked, then the response to question 1 was eliminated from the analysis on the independent variable gender.

A no selection or double selection on marital status resulted in the marital status "other" category being utilized. A multiple selection for racial or ethnic background was coded choice "other." If no information was given for age or tenure in the profession, analysis on the associated independent variable was deleted. If neither or both choices were selected for type of vocational responsibility, then

an "other" category was utilized for purposes of data analysis on that variable.

Question 7 in the counselor booklet was inserted to identify and thereby exclude counselors who may also be ordained clergypersons, though not necessarily Presbyterian ministers. The goal was to minimize the confounding effects on the analysis of counselor-identified clergy. Twenty-eight counselors (10.2%) identified themselves accordingly and were removed from the analysis of data. This left an n of 515 eligible for statistical procedures, 48.5% of whom were counselors.

Two decision rules were established to address the possible deletion of responses on the CES-D and DAS. In both cases, if no response was given for an item, the item was deleted from analysis. The maximum deletion limit established by Radloff (1977) for the CES-D was adopted. If four or more items were omitted, the booklet was discarded from the analysis. Similarly, Weissman's (1978) recommendation for the DAS was adopted. Five or more deletions resulted in the booklet's disqualification from analysis.

In summary, over a 4-week inclusion period, 543 research booklets were returned from the initial mailing of 1,000. Forty-nine percent were comprised of clergy. An additional 18 persons returned booklets requesting no participation. Twenty-four booklets came in after the cutoff date and, therefore, were disqualified. In all, 585 booklets were returned. After the deletion of counselors who identified themselves as ordained ministers, 515 responses remained eligible for statistical analysis.

Demographic Description of the Research Sample

Tables 1 and 2 provide descriptive statistics on the interval and categorical variables by group and variable tier.

Table 1

Descriptive Data on Interval Variables

Factor by Group Tier	Mean Score	Standard Deviation	n
Combined			515
Clergy			265
Counselors			250
CES-D			
Combined	8.282	7.747	514
Clergy	8.288	7.789	264
Counselors	8.276	7.718	250
DAS			
Combined	97.423	24.310	515
Clergy	103.623	23.159	265
Counselors	90.852	23.812	250
AGE			
Combined	46.765	12.253	515
Clergy	49.011	14.068	265
Counselors	44.384	9.436	250
TENURE			
Combined	12.394	12.516	510
Clergy	17.845	14.718	264
Counselors	6.545	5.153	264

Table 2

Descriptive Data on Categorical Variables

Factor	Tier	Clergy n(%)	Counselors n(%)	Total n(%)
Marital Status				
	Single	37 (14)	42 (17)	79 (15.34)
	Married	206 (78)	162 (65)	368 (71.46)
	Divorced	13 (5)	37 (15)	50 (9.71)
	Other	9 (3)	9 (4)	18 (3.50)
Race or Ethnicity				
	White	249 (94)	239 (95.6)	488 (94.76)
	Minority	16 (6)	11 (4.4)	27 (5.24)
Type of Work				
	Direct	193 (75)	214 (86)	407 (80.28)
	Indirect	57 (22)	31 (12)	88 (17.36)
	Other	8 (3)	4 (2)	12 (2.37)
Gender				
	Male	128 (48)	108 (43)	236 (45.83)
	Female	137 (51.7)	142 (56.8)	279 (54.17)

Group, age and tenure. Of the 515 respondents, 265 (51.5%) were clergy. Of the total participants, 236 (45.8%) were male, and 279 (54.2%) female. Fifty-two percent (137) of the ministers were female, and 57% (142) of the counselors were female. The average

age in years was 49 and 44 for clergy and counselors, respectively. The mean number of years in their respective professions were 17.8 for ministers and 6.5 for counselors.

Marital status. The variable choice widow/er received very few endorsements. Therefore, the marital status category was collapsed to four choices with widow/er being included in the "other" tier. Marital status statistics for the whole sample indicated 15.3% to be single never married, 71.5 % married, 9.7% divorced, and 3.5% classified as "other." By groups the marital status broke down as follows: Clergy--13.9% single, 77.7% married, 4.9% divorced, and 3.4% classified as other; counselors--16.8% single, 64.8% married, 14.8% divorced, and 3.6% classified as other.

Racial or ethnic background. White not of Latin origin constituted 94.8% of the survey sample. In order from the most to least represented, the following additional populations were present: 1.4% Native-American, 1.2% African-American, 1.2% Hispanic, 1% Other, and .6% Asian/Pacific Islander. As a result of the low individual representations by population category, the researcher collapsed the racial and ethnic background variable into two categories, majority (White not of Latin origin) and Minority (racial-ethnic). The latter category encapsulated the minimally represented populations. The goal was to enhance the statistical analysis procedures so as to most efficiently elaborate any significant relationships or interactions based on factors associated with race or ethnicity. Subsequently, whites were represented as 94% of the clergy and 96% of the counselors.

Types of vocational responsibility. Four hundred and seven (79%) respondents indicated they were employed in direct (i.e., counselor, parish related) services. Eighty-eight (17.1%) of the participants described themselves in supervisory, educational, or administrative positions. Twelve (2.3%) identified themselves as being equally involved in both areas. By groups 74.8% of the clergy were in parish-related activities, 22% in administration, and 3.1% identified as other. Eighty-six percent of the counselors described themselves in direct services, 12.5% in supervisory or educational positions and 1.6% a combination of both.

Reliability Estimates for the CES-D and DAS

Reliability coefficients for the CES-D and DAS were calculated. The Cronbach's alpha formula was utilized to account for the Likert scale items on both instruments (Crocker & Algina, 1986). The coefficient alpha for the CES-D was .898. This finding suggested about 90% of the total score variance was from true score variance. This was also indicative that subjects' performance was relatively consistent across items on the CES-D and may generalize to similar items within a comparable construct domain.

The coefficient alpha calculated in this study is consistent with reliability estimates reported in prior studies utilizing the CES-D with similar populations. Radloff (1977) described a range of coefficient alphas from .85 to .87 for normal populations. Given the results of prior studies and the relatively small number of items (20) on the CES-D, a coefficient alpha of .898 is quite acceptable.

The reliability estimate for the DAS-A in this study was calculated at .902. This coefficient alpha suggested about 90% of the variance on the instrument was attributable to true score variance. The estimate derived in this research is consistent with alphas reported in prior research with like populations. A range of Cronbach's alphas from .81 to .93 (Dobson & Breiter, 1983; Dobson & Shaw, 1986; Zemore & Veikle, 1989) have been established. The alpha of .90 in this study exceeded Oliver and Baumgart's (1985) reported .85 on the DAS-A. It also surpassed the alpha of .87 derived from Dobson and Shaw's (1986) administration of the DAS on a normal population.

Analysis Procedures

The analysis of data for this study was accomplished through the use of the SAS General Linear Model (GLM). Two regression models were developed to test the eight research hypotheses. The first model designated the level of depression by CES-D score as the criterion (output variable). This model evaluated hypotheses 1 through 5 for strength of associations and interactions on the predictor (input) variables. The second model designated the level of dysfunctional attitudes by DAS score as the criterion variable and tested hypotheses 6 through 8 for associations and interactions on the input variables.

For purposes of determining levels of statistical significance, the type 1 error rate .05 was established (Agresti, 1986). A decision to accept or reject the specific null research hypothesis was based on

this predetermined attained significance level. Source data are rounded off to the nearest ten thousandth.

Table 3 describes the specific variables for the regression models.

Table 3

Variables Included in Regression Models 1 and 2

Regression Model 1 Input Variables	Regression Model 2 Input Variables
DAS Score	Gender
Gender	Age
Age	Marital Status
Marital Status	Racial or Ethnic Background
Racial or Ethnic Background	Tenure in the Profession
Tenure in the Profession	Type of Vocational Responsibility
Type of Vocational Responsibility	Group
Group	
Output Variable Model 1	**Output Variable Model 2**
CES-D Score	DAS Score

The first regression model was developed to evaluate hypotheses 1 through 5. For purposes of the analysis, the first equation included all of the independent variables including

interactions between group and each of the other input variables. A second equation was similar to the first but deleted all the interaction terms. The goal was to perform the regression analysis and select the most parsimonious model which accounted for the existence of interaction terms and the most significant proportion of variance. If the equation which incorporated the interaction effects was found to have no significant improvement in model fit, the main effects equation was utilized. The regression coefficients for that model were then tested for their levels of attained significance.

The second model was developed to evaluate research hypotheses 6 through 8 and, therefore, incorporated the level of dysfunctional attitudes as the outcome variable. Equation 1 in this model incorporated all the independent variables including interaction between group and the other independent variables. Likewise, if after multiple regression analysis was performed none of the interaction terms were significant, the main effects equation was retained as most efficient and tested for significance.

Regression Results

Model 1. Both the interaction and main effects equations were found to have significant F values and alpha levels, $F(7.74)$ $p > F = .0001$ and $F(13.75)$, $p > F = .0001$, respectively. There were, however, no significant interactions found. Findings of an overall test also determined no significant difference existed between the two equations (F value 1.1017, $p = .05$) and confirmed the use of the more parsimonious equation. Therefore, the regression coefficients

for the main effects equation were tested for attained significance. This equation was determined to account for approximately 24% of the total variance in the model, R square equal to .2358. Table 4 shows the sources of variance in the model.

Table 4

Source Table for the Model to Test the Main Effects with CES-D as the Dependent Variable

Source	DF	Type IIISS	F Value	p Value
Group	1	12.1810	0.26	0.6115
DAS	1	5109.1342	108.38	0.0001*
Gender	1	15.1992	0.32	0.5704
Age	1	10.8669	0.23	0.6314
Marital	3	1040.8454	7.36	0.0001*
Race/Ethnic	1	56.8338	1.21	0.2727
Tenure	1	323.7751	6.87	0.0090*
Work Type	2	67.2373	0.71	0.4906

*$p < .05$

Table 5 describes the regression coefficients elaborated by the model to test for the main effects with CES-D as the outcome variable.

Table 5

Regression Coefficients and T-Values for the Model to Test the Main Effects with CES-D as the Dependent Variable

Input Variables	Estimate	t-value
Group		
Clergy	-0.3736	-0.47
Counselors	0.0000	0.00
DAS	0.1401	10.41*
Gender		
Female	-0.4125	-0.57
Male	0.0000	0.00
Age	0.0184	0.48
Marital Status		
Divorced	-1.3195	-1.01
Married	-2.7258	-2.98*
Other	4.0334	2.15*
Single	0.0000	0.00
Race/Ethnicity		
Minority	1.5420	1.10
White	0.0000	0.00
Tenure	-0.1145	-2.62*
Work Type		
Direct	-1.2231	-0.60
Indirect	-0.3336	-0.15
Other	0.0000	0.00
Intercept	-1.4707	-0.47

*$p < .05$

The goal of the regression analysis was to determine what, if any, relationship existed between an independent variable and the outcome variable when the effects for all the other variables were controlled. In this model four variables contributed substantially to the scores on the CES-D. The variables found to have attained significance were DAS score, $t = 10.41$, $p < .05$; tenure in one's profession, $t = -2.62$, $p < .05$; marital status--married, $t = -2.98$, $p < .05$; and marital status "other", $t = 2.15$, $p < .05$. No additional variables were found to contribute significantly to the outcome measure.

An examination of the regression coefficients gives information regarding the direction of the relationship between the interval, independent variable, and outcome measure. A positive coefficient describes a relationship wherein an increase in the independent variable results in an associated increase in the dependent variable, in this case the level of depression. A negative estimate depicts an inverse relationship where, as the independent variable increases, the associated dependent variable decreases in magnitude.

The results found in Table 5 indicate that scores on the DAS were positively associated with the outcome measure, CES-D. That is, for every 5 points of increase on the DAS there was a resultant increase of .70 of a point on the CES-D. The relationship between tenure in the profession and CES-D score, however, was negative in direction. For example, for every 5 years of tenure in the profession, the CES-D score can be expected to decrease .6 of a point.

To evaluate the relationship of the categorical variables found to make significant contributions to the CES-D, a comparison of the adjusted means was made. In this model marital status--married and marital status--other were established as statistically significant. The adjusted mean scores for the marital status tiers were divorced (x =10.16); married (x = 8.75); other (15.51), and single (x =11.48). In doing the preplanned comparisons a Bonferroni two-tailed test was utilized. With six comparisons an attained significance level of p = .0042 was established. The results were that when compared to the marital status--other, married persons demonstrated significantly lower scores on the CES-D (t value -3.8854, p = .0001). Further, when compared to single never married, the married persons had significantly lower scores on the outcome measure (t value = -2.9814, p = .0030). No other significant comparisons were described.

Model 2. The second set of equations were developed to test hypotheses 6 through 8. Scores on the DAS constituted the outcome variable. All other independent variables and their associated interaction terms with the remaining independent variables as associated with the outcome variable were evaluated. No significant interactions were described. Results of an overall test also established no signifcant difference between the two equations (F Value 1.2015, p = .05). Therefore, the main effects equation was used to test the regression coefficients. This model explained 13% of the variance (R square = 0.1278). The model was found to be statistically significant (F value 7.21, p = 0.0001). Table 6 describes

the sources of variance for the model. Table 7 shows the regression coefficients which were tested for significance.

Table 6

Source Table for the Model to Test the Main Effects with DAS as the Dependent Variable

	DF	Type IIISS	F value	p value
Group	1	10603.7076	20.02	0.0001*
Gender	1	1463.5061	2.76	0.0971
Age	1	11510.1716	21.73	0.0001*
Marital	3	735.8544	0.46	0.7081
Race/Ethnic	1	36.3219	0.07	0.7935
Tenure	1	2961.0355	5.59	0.0184*
Work Type	2	462.3464	0.44	0.6465

*$p < .05$

The following variables were found to be statistically significant in the model evaluating hypotheses 6 through 8: group (F value 20.02, $p = .0001$); age (F value 21.73, $p = 0001$); and tenure (F value 5.59, $p = 0184$). No other variable attained statistical significance in the model.

An examination of the regression coefficients indicates a negative association between the variable age and DAS score. That is, for every 5 years of age, an associated reduction of approximately 2.9 points on the DAS score can be expected (.586 x 5). Further, a

Table 7

Regression Coefficients and T Values for the Model to Test the Main Effects with DAS as the Dependent Variable

Input Variables	Estimate	t-value
Group		
Clergy	10.8048	4.47*
Counselors	0.0000	0.00
Gender		
Female	-4.0354	-1.66
Male	0.0000	0.00
Age	-0.5861	-4.66*
Marital Status		
Divorced	-2.2084	-0.50
Married	.4926	0.16
Other	-5.2232	0.00
Single	0.0000	0.00
Race/Ethnicity		
Race/Ethnic	-1.2326	0.26
White	0.0000	0.00
Tenure	0.3442	2.36*
Work Type		
Direct	0.4112	0.06
Indirect	2.9766	0.41
Other	0.0000	0.00
Intercept	116.4303	12.71*

*$p < .05$

positive direction in relationship is demonstrated between tenure in the profession and the DAS score. For every 5 years in the profession, an increase of approximately 1.7 points on the DAS can be anticipated (.344 x 5).

The independent variable group's adjusted means by tier were 100.71 for clergy and 89.91 for the counselors. The comparison of the two means yielded a t-value of 4.4746 with an attained significance level of $p = .0001$. This finding suggests that, when compared to counselors, the clergy achieved a significantly higher score on the DAS.

In summary, the two models used to test the research hypotheses for this study determined the existence of significant associations between selected independent variables and the outcome measures. Where the level of depression (CES-D score) is the targeted outcome, the variable DAS score had a positive directional relationship. Tenure in the profession, however, yielded a negative direction in its association with CES-D score.

In the same model, the marital status levels of married and status "other" were significantly related to the CES-D score. Married persons scored significantly lower than did the "other" status or single never married persons. The scores of divorced persons were not found to be significantly different than the other groups.

The second model yielded somewhat different relationships between the independent variables and the outcome variable DAS score. The factor of age was found to contribute in a negative direction to level of dysfunctional attitudes. Tenure in the profession

was, however, related the DAS score in a positive direction. It was also determined that when compared to counselors, clergy scored significantly higher on the DAS.

Dependency of Possible Depression on Variables

Of interest to this research were the rates of possible depression in clergy and counselor groups. A cutoff score of 16 was utilized to identify cases which could be described as possible depression. This cutoff is consistent with Radloff's (1977) epidemiological research which used the CES-D in normal populations. The cutoff of 16 is operationalized such that any CES-D score of 17 or more is considered a case of possible depression. The "step-up" for the cutoff is incorporated in this study to enhance the high-end sensitivity of the CES-D (Lewinsohn et al., 1989) and further increase the likelihood of the score representing levels of symptoms associated with depression.

Chi-square procedures were run on the independent variables group, gender, marital status, race or ethnicity, and type of vocational responsibility. An attained significance level of $p = < .05$ was established. Only marital status and race or ethnicity were found to be significant. Of the latter, 25% of the cells had less than the expected minimum counts which suggested the chi-square may be invalid. Table 8 shows the cells and summaries for the chi-square analysis on the variable marital status.

In summary, the test to determine the dependency of the possible cases of depression on selected independent variables was done. Only marital status was found to have a significant chi-square.

Table 8

Chi-Square Test on Marital Status by Possible Depression Score

Marital Status	Classification of Possible Depression		Total
	Not Depressed (Frequency Expected--%)	Possible Depression	
Single	65	14	79
	68.42	10.58	
	12.62	2.72	15.34
Married	324	44	368
	318.7	49.31	
	62.91	8.54	71.46
Divorced	45	5	50
	43.30	7.00	
	8.74	0.97	9.71
Other	12	6	18
	15.59	2.41	
	2.33	1.17	3.50
Total	446	69	515
	86.60	13.40	100
Chi-square	DF = 3	Value 8.595	$p = 0.035$*

*$p < .05$

This finding is consistent with the earlier discussion of the multiple regression model in which marital status was established as significant factor in score on the CES-D.

Hypotheses Testing

Eight hypotheses were tested as a part of the theoretical extension of this research. Model 1 in the linear regression procedures tested hypotheses 1 through 5 for statistical significance. Model 2 tested hypotheses 6 through 8. Hypothesis 1 states there is no significant difference between Presbyterian ministers and mental health counselors on current level of depression as measured by the CES-D. Based on the results of Model 1, no significant differences on the outcome variable by group were determined. Therefore, no statistical evidence existed to reject null hypothesis 1.

Hypothesis 2 asserted no significant relationship between the current level of depression and level of dysfunctional attitudes existed. The results of the regression demonstrated a statistically significant (t value = 10.41, $p < .05$) association between scores on the CES-D and DAS. The regression estimate (0.1401) suggested a positive direction in relationship existed such that for every 5 points increased on the DAS a resultant increase of .70 of a point on the CES-D can be expected. Data from the study supported the rejection of null hypothesis 2.

Hypothesis 3 stated the relationship between the level of depression and dysfunctional attitudes does not differ for Presbyterian ministers and mental health counselors. No statistical evidence was established to support the rejection of hypothesis 3.

Hypothesis 4 asserted that there is no significant association between the current level of depression and the independent variables of gender, age, marital status, tenure in the profession, race or ethnicity, and type of service. Data from this study support the rejection of the null hypothesis 4. Results from linear regression model 1 confirmed a significant relationship between the marital status of "other" (t value = 2.15, $p < .05$), marital status married (t value = -2.98, $p < .05$) and tenure in the profession (t value = -2.62, $p < .05$). The regression estimate on the interval variable tenure (-0.1145) suggested that for every 5 years of tenure a resultant .57 of a point decrease on the CES-D score can be expected.

Additionally, planned pairwise comparisons which used a Bonferonni adjustment ($p < .0042$) on the adjusted means of the marital status variable resulted in the following outcomes: When compared to the martial status "other," married persons had significantly lower scores on the CES-D (t value = -3.8854, $p = .0001$). Further, when compared to single never married persons, married persons had significantly lower levels of depression (t value = 2.9814, $p = .0030$).

Hypothesis 5 stated the relationship between the current level of depression and the independent variables of gender, age, marital status, tenure in profession, race or ethnicity, and type of service did not differ for Presbyterian ministers and mental health counselors. Based on the findings of this study, there is no statistical evidence for rejecting null hypothesis 5.

Hypothesis 6 asserted no significant difference between ministers and mental health counselors on the level of dysfunctional attitudes existed. Findings from the second regression equation established the presence of a significant relationship by group membership and the scores on the DAS (t value = 4.47, $p < .05$). When a comparison of the adjusted means was done, it was confirmed that clergy scores ($x = 100.71$) were significantly higher than those of the counselors ($x = 89.91$). The attained significance level was $p = .0001$ with a t value of 4.47. Null hypothesis 6 was, therefore, rejected.

Hypothesis 7 stated no significant relationship existed between the level of dysfunctional attitudes and the independent variables of gender, age, marital status, tenure in the profession, type of service, and race or ethnicity. Findings of this study determined age and tenure to have demonstrated a significant association with the level of dysfunctional attitudes.

Age was established to have made a significant contribution (t value = -4.66, $p = < .05$) to the DAS score. The regression estimate of -0.5861 suggested that for every 5 years in age a resultant decrease or 2.93 points on the DAS can be expected. Likewise, tenure in the profession was found to be a statistically significant factor in the DAS score (t value = 2.36, $p < .05$). The regression coefficient of 0.3442 indicated that for every 5 years in the profession a decrease of 1.72 points on the DAS could be anticipated. Based on the above findings, null hypothesis 7 was rejected.

Hypothesis 8 asserted the relationship between dysfunctional attitudes and the independent variables of gender, age, marital

status, tenure in profession, type of service, race, or ethnicity did not differ for Presbyterian ministers and mental health counselors. No statistical evidence was established to support the rejection of null hypothesis 8.

Chapter Summary

This chapter has presented discussion of the procedures for data collection, associated rates of return, decision rules, data analysis, and results of this research. Estimates of reliability on both research measures were presented. Finally, outcome testing to accept or reject the study's 8 null research hypotheses was examined. Statisitical evidence derived from the analysis of data supported the rejection of hypotheses 2, 4, 6 and 7.

CHAPTER V
DISCUSSION AND RECOMMENDATIONS

Overview of the Study

The purpose of this chapter is to elaborate on the results of the statistical analysis undertaken to answer the research hypotheses in this study. Of interest to this research were four key questions. First, to what degree is a cluster of particular cognitive schemas associated with syndromal depression? These attitudes or schemas have been identified by Beck (1976) and Weissman (1978) to be codeterminants with other environmental and biological factors in the onset and maintenance of depression.

A second line of inquiry was the capacity of a countervalent belief system to attenuate the presence and influence of the dysfunctional schemas. Based on their theology, a rationale was developed for the selection of Presbyterian (USA) ministers as a research population. Additionally, epidemiological data suggested rates of clergy help-seeking for a variety of mental health concerns was on the increase (Blackmon, 1985; Church Healthcare Network, 1991). Knowledge about the role of dysfunctional attitudes in levels of depression in this population may have implications for the identification of at risk professionals and the development of educational and therapeutic interventions.

Next, a number of variables were also examined for their potential effects and interactions with the levels of dysfunctional schemas and depression. These independent factors included the age, gender, race or ethnic background, marital status, tenure in the profession, and primary vocational responsibility of the study's participants.

Lastly, in order to establish how discriminant the statistical evidence on the ministers was, a similarly trained group of helping professionals was selected as a comparison group. This group was comprised of persons who identified themselves by career function and professional affiliation as mental health counselors. To control for any confounding effects of counselors also trained as clergy, each counselor was screened and removed from the study if identified as an ordained clergyperson. As a result of this filter, 28 counselors (10.2%) were deleted from the analysis of data for the study.

The results of the statistical procedures were examined for the similarities and differences between clergy and counselors by scores on the level of depression and dysfunctional attitudes. Additionally, direct effects and interaction terms on the independent variables of age, gender, race and ethnicity, marital status, tenure in the profession, and type of work were also reported.

The Research Sample

Five hundred ministers and 500 counselors from a nationwide, random sample received the research instrument. The instrument was distributed by first-class mail in three parts over a 3-week period. In a sequence of 1-week intervals, the research samples

were sent an announcement card, the cover letter and research questionnaire, and a follow-up card. Participant response was designed to be completely anonymous by prestamped and self-addressed business envelope to a post office box. A total of 561 booklets were returned. After observing requests for nonparticipation, incorrect addresses, and the deletion of the ordained counselors, a total of 515 usable questionnaires remained. Two hundred sixty-five clergy and 250 counselors comprised the source for the data analysis.

The Relationship of Dysfunctional Attitudes, Level of Depression, and Demographic Variables

Difference by Group on Level of Depression

The results of this research did not support the rejection of hypothesis 1. That is, no significant difference was established between the scores of clergy and counselors on the level of depression as measured by the CES-D. Additionally, when chi-square tests were done to determine the dependency of status as possibly depressed on the independent variable of group (i.e., clergy or counselor), a level of attained significance ($p < .05$) was not achieved.

The status of possible depression was assigned by a score of 17 or greater on the CES-D. Of the 265 ministers, 30 (11.32%) attained a score of 17 or more. Thirty-nine of the 250 counselors (15.6%) were similarly identified. There is debate about how high a CES-D score must be to confirm a diagnosis of depression (Boyd et al., 1982; Iwata, 1989; Lewinsohn et al., 1989; Radloff, 1977; Shaw et al., 1985). The cutoff score of 16 for this study was selected to increase high-end sensitivity for symptoms associated with syndromal

depression. Therefore, while there exists no significant statistical difference between the clergy and counselors on level of depression, it is important to note that as groups their rates exceed the NIMH statistics for the normal population. In the United States, of the 28.9 million persons who may have suffered from any mental disorder during a 1-month period in 1989, an estimated 5.2% were depressive in nature (NIMH, 1991). Further, it is estimated 8.3% of the adult population over the age of 18 will suffer with symptoms of clinical depression at some point over the course of their lifetime (NIMH, 1991; Myers et al., 1984).

If the scores on the CES-D are at the least a representative measure of the symptoms associated with depression, the percentage of clergy and counselors scoring at the cutoff is cause for concern within the professions. These results may be a partial explanation for the increase in help-seeking behavior for mental distress on the part of ministers (CHN, 1991) and counselors (Deutsch, 1985; Ross et al., 1989; Thorensen et al., 1986). Further study needs to be undertaken to establish the relationship between the severity of the identified symptoms and their effects on personal well-being and vocational function within these caregiving professions.

The Relationship between the Level of Dysfunctional Attitudes and Level of Depression

Regression model 1 was used to evaluate the relationship between level of depression (CES-D) and level of dysfunctional attitudes (DAS). Results of the multiple regression procedure substantiated a statistically significant (p = .0001) positive direction in the association between the CES-D and DAS scores. The regression

estimate (0.1400) suggested that for each 5 points on the DAS a concomitant increase of .70 of a point can be expected on the CES-D. Based on this statistical evidence, hypothesis 2 was rejected.

The finding that scores on the DAS are related to the level of current depression has been established in a number of studies (Bowers, 1990; Eaves et al., 1984; Levine & Wetzel, 1986; Peselow et al., 1990; Power, 1988; Weissman & Beck, 1978; Wierzbick & Rexford, 1989). The results of this research contribute additional evidence to the cognitive theory of depression which asserts the linkage between underlying attitudes and depression. These schemas are based on the exaggerated personal need for acceptance, achievement, love, perfection, entitlement, autonomy, and omnipotence. Their presence distorts one's view of self-worth and the intake of information which forms the basis for cognitive, behavioral, and affective response. Beck et al. (1979) theorized that the persistence in intensity of these attitudes potentiates the development of depressogenic symptoms associated with the syndrome of depression. The presence of this relationship in the comparison groups, therefore, warrants attention to the cognitive dimensions of personal and professional life.

Differences by Group on the Level of Dysfunctional Attitudes and Level of Depression

A central question to this research was the degree to which the survey sample of clergy and counselors differed on their levels of depression and dysfunctional attitudes. Given the finding of a positive association between the DAS and CES-D score, was a significant difference in scores present for either group? No

statistical evidence to suggest such a difference existed was determined in this study. Therefore, hypothesis 3 was not rejected.

Based on anecdotal evidence and the finding in this study that the ministers had significantly higher DAS scores than the counselors, further study is needed to ascertain if other variables may affect the relationship between the CES-D and DAS scores within the ministerial or counselor cohort. Such effects may include aspects in the working environment, availability of social support, job mobility, and reward system.

The Contribution of Demographic Variables on the Level of Depression

Besides the independent variable level of dysfunctional attitudes, six additional demographic factors were examined for their contribution to the level of depression (CES-D score). These variables included gender, age, marital status, race or ethnic background, tenure in the profession, and type of vocational responsibility. Marital status and tenure in profession were found to be significantly associated with level of depression. Therefore, research hypothesis 4 which stated no relationship existed between the CES-D score and the independent variables was rejected.

Marital status. Preplanned comparisons of the adjusted means for the marital status tiers were made. Following a Bonferroni adjustment, it was established that persons endorsing marital status "other" had significantly ($p < .0042$) higher scores on the CES-D than did married persons. The average score of the marital status "other" category was 15.5 as compared to 8.75 for married persons. Though higher than singles never married ($x = 11.48$) and divorced persons

(x= 10.16), the differences between these categories were not found to be statistically significant.

It is worthwhile to remember that the marital status "other" category is the product of combining the widow/er and other choices. This was done because of the low number of endorsements in the former grouping. The "other" category was initially conceived to capture persons who may identify themselves as engaged in a significant relationship not classified by traditional nomenclature. Nine clergy and nine counselors utilized this variable tier. Some of the respondents voluntarily and anonymously described themselves to be in same-sex relationships, committed but long distance, nonmarried and cohabiting arrangements. Higher CES-D scores can be, in part, understood as an aspect of the lack of general social acceptance for these forms of relationship.

Moreover, with the current debate in the Presbyterian (USA) denomination regarding restrictions on the ordination of overtly gay or lesbian persons, these individuals are at risk for collegial and institutional alienation (Office of the General Assembly Presbyterian Church [USA], 1991). The denomination has historically argued for a heterosexual orientation to human sexuality. This position places a premium on relationships which conform to Biblical and theological interpretations which advocate for abstinence in matters of sexuality outside of marriage and the importance of marriage. Therefore, any dimension of intimacy not viewed as normative may lead to higher risk for depression and other forms of emotional distress for gay, lesbian, and single cohabiting persons. The findings of this study

suggest the need for further research to examine the effects of intimacy patterns on levels of depression within the ministerial profession.

There is considerable debate as to the effect of marital status on mental well-being (Fong & Amatea, 1992; Killien, 1991; Mookherjee, 1989). In this study married persons had significantly lower ($p < .0042$) CES-D scores than either single never married or marital status "other" persons. Results from this study, however, did not indicate the level of depression for married persons was statistically different from divorced persons. Perhaps this is indicative of some divorced persons' involvement in establishing alternative support systems. The creation of social support may serve to attenuate their level of depression and mental distress (Swindle et al., 1989). Further, within the context of the two professions sampled for this study, collegiality and professional networks are acceptable methods of establishing self-care. Additional study is needed to better understand the relationship between marital support, social support, and the level of depression in these professions.

Tenure in the profession. The length of time identified as a member of the profession was also determined to make a statistically significant ($p < .05$) contribution to the level of depression. The regression coefficient (-0.1145) indicated that for every 5 years in their respective profession, clergy and counselors could expect a decrease of .57 of a point on the CES-D score. This negative direction in the relationship may be a product of the enhancement of coping

skills, financial resources, professional status, and adequate personal and institutional support acquired over time.

For the clergy this finding can be said to support the developmental models of ministry which propose the middle and late stages of professional life as periods of peak earning and goal directedness (Jud et al., 1970; Malony et al., 1991). The addition of professional status, financial resources, and other associated benefits may serve as a buffer to the increase in CES-D scores.

An alternative explanation for this relationship also merits further exploration. The findings of this study regarding professional tenure and level of depression may represent a "survivor's" pattern. Inasmuch as this study sampled only active members of the clergy and counseling professions, the experience of persons who may have withdrawn from their profession was not included. Therefore, additional research is needed to determine the degree to which dysfunctional attitudes and depression may have played a role in persons who have chosen to exit their profession.

In summary, marital status and tenure in the profession were found to make statistically significant contributions to the level of depression (CES-D score). No other demographic variable under study in this research was determined to have a significant direct effect.

The Relationship of Level of Depression and Demographic Variables by Group

Hypothesis 5 was designed to evaluate whether the relationship between the current level of depression and gender, age, marital status, tenure in the profession, race or ethnic background,

and type of work differed for the two samples, ministers and counselors. No significant interactions by group were found; therefore, hypothesis 5 was not rejected. Of interest is the significant difference by group which is found when the DAS score is the output variable. This finding, to be discussed further in a treatise on hypothesis 7, would seem to suggest that such a difference by group would logically have been expected as an effect on the CES-D score. The lack of its significance underscores the complexity of the relationships between the level of depression, dysfunctional attitudes, and moderating variables in the personal and work domains.

The Relationship of Dysfunctional Attitudes and the Demographic Variables

The Level of Dysfunctional Attitudes by Group

The analysis of data supported the existence of a statistically significant ($p < .05$) relationship on the measure of dysfunctional attitudes by virtue of group membership. The difference in mean scores of 103.62 for clergy and 90.85 for counselors was 12.77 points on the DAS. It can be expected that this evidence for a differentiation in the scores by clergy and counselors on the DAS would generalize to the research populations. The data provided evidence to reject the null research hypothesis.

Given the significant difference on their DAS scores, it is logical to conclude that clergy may be expected to be at greater risk for symptoms associated with depression than their counselor counterparts. Findings of this study established the existence of a significant and positive relationship between scores on the DAS and

CES-D (Regression estimate = 0.1400). The results of regression Model 1, however, determined the absence of a significant difference in mean scores and direct effect on the CES-D by group. The difference in mean scores between groups was .39 with averages of 11.29 and 11.66 for clergy and counselors, respectively. This means that if clergy and counselor scores were equivalent on the DAS, no significant difference in level of depression as measured by the CES-D would be expected.

The significant difference between clergy and counselors on DAS scores suggests an indirect effect of group on level of depression. Given a mean score which is 12.77 points higher, clergy can be expected to be more vulnerable to symptoms associated with depression as measured by the CES-D. This increase in vulnerability on the part of clergy would be concomitant with their increased level of dysfunctional attitudes. The importance of this heightened susceptibility and its implications for the well-being of the clergy merits further consideration and research.

Additionally, some of the independent variables studied in this research, notably marital status, age, and tenure in the profession, were found to make significant contributions to the CES-D. The amount of variance accounted for by the model (R square = .128), however, indicated the presence of yet other factors which contributed to the output variable. Knowledge of those moderating factors in combination with those studied in this research may help to explain the anomaly in this finding.

It was an important finding in this inquiry that clergy can be differentiated from counselors by their higher scores on the measure of dysfunctional attitudes. A rationale was presented to support the idea that Presbyterian ministers subscribed to a religious belief system which contrasted with the content of Beck (1976) and Weissman's (1978) dysfunctional attitudes. Further, it was suggested the clergy belief system was systematically trained and reinforced by virtue of the minister's seminary training, conventions by which they are ordained, and their professional roles as educators and caregivers.

It was logical, therefore, to assert the possibility existed these beliefs, given their countervalent content, may have served to attenuate the onset and effect of the dysfunctional schemas articulated by Beck and Weissman. In essence, these religious beliefs may have provided a type of cognitive immunity or resistance to the cognitive factors which Beck (1976) asserted contributed to depression.

The findings of this study do not support the idea that a significant pattern of cognitive resistance was established. While no direct effect of group membership on CES-D score was established, the higher scores of the Presbyterian clergy on the DAS suggested an indirect effect on the level of depression. Given their higher mean score on the DAS, it is logical to expect an increased vulnerability to the symptoms of depression as measured by the CES-D. In addition, the outcomes of this study suggested that both professional groups

when compared to the general population may be at risk for the development of symptoms associated with depression.

Not evaluated in this study, however, was the degree to which the belief system of the clergy may be efficacious. The possibility exists that given the increase in job-related stress for ministers over the last several decades (Gaddy, 1991; Hart, 1984; Maeder, 1989), the efficacy of the religious belief system to normally stem the effects of distress has been diminished. It may be it is this cumulative attenuation of the curative effects of the clergy belief system (McClure & Loden, 1982; Timmerman, 1988) which was evidenced in the results of this research. The findings of this study suggest timely and organized attention by the theological educators, governing bodies, and constituents of the Presbyterian ministers is merited to stem the effects of increasing job-related stress.

The Relationship of Level of Dysfunctional Attitudes and Demographic Variables

Hypothesis 7 focused on the relationship of dysfunctional attitudes and independent, demographic variables. Two input factors were found to make significant ($p < .05$) contributions to level of dysfnctional attitudes, age of the participant and tenure in the profession.

Age of the participants. The age of the participant was determined to have a negative direction in relationship to scores on the DAS. The regression estimate for age was established as -0.586. For every 5 years of age, a 2.93 point decrease in the score of the DAS can be expected.

Several explanations are hypothesized to explain this relationship between age and level of dysfunctional attitudes. Aging may have some moderating effect on the assessment process itself. That is, more experienced persons may respond to the survey based on a more highly developed preferential self-perception. Thus, persons may become more decisive in how they wish to think about and describe their world as contrasted to how they may in practice cognitively function on a daily basis. Their response may produce a pattern based more on how they want to view themselves than so much how they wish others to perceive them.

A second explanation may reside in the nature of the professions sampled. With experience in the helping professions, there may also be a tendency to yield to how one perceives others' expectations about beliefs. A gulf develops between the experience of one's inner identity and the expectations one's clients or congregation hold (Hart, 1984; Maeder, 1989; Rayburn et al., 1986). Exaggerated needs for affirmation, perfection, achievement, and power are not generally admired in the helping professions, although the working environment may promote these qualities (Schuller et al., 1980; Levi, 1990). As a result, a response pattern in the assessment of the dysfunctional attitudes can reflect how the participant responds to the perceived expectations of others.

The cognitive theory of depression may provide the most compelling explanation for the relationship between age and DAS score. The modification of attitudinal content which occurs over time may result in the decrease in DAS score with aging. Life experience,

which may include therapy or otherwise significant learning experiences, can suggest alternative explanations for one's experiences. If adopted, these new attitudes can either supplant or significantly alter the negative schemas. Indeed, the goal of cognitive therapy is to revise the underlying beliefs by rational restructuring, behavioral experimentation, and reevaluation of consequences of action (Beck et al., 1979; Meichenbaum, 1977; Persons, 1989). Extensive life experience provides more occasion for the introduction of such curative and reformative learning. Therefore, it can be argued that with the increase in age a concomitant decrease in the level of dysfunctional attitudes can be anticipated.

Tenure in profession. The second demographic variable to have exhibited a directional relationship with the score on the DAS was tenure in the profession. Length of time in the vocation, unlike age, however, demonstrated a positive direction in relationship with the level of dysfunctional attitudes. The regression estimate for tenure was calculated as 0.344. For every 5 years in the profession, an increase of 1.72 points on the DAS can be expected.

This determination appears to contradict the previously discussed finding that age has a negative direction in association with the DAS score. Logically, age and tenure could be assumed to share an association which is positive in nature. In the main effects model, however, the significant contribution ($p < .05$) of tenure is established when the regression equation controls for all other variables. The regression model confirmed that when other demographic factors in

this study were accounted for, an increase in the level of dysfunctional attitudes could be expected with increase in time in the profession.

This finding is consistent with previous studies which linked level of dysfunctional attitudes and increased stress associated with public self-consciousness (Kuiper et al., 1987) and low social support (Barnett & Gotlib, 1990). Maeder (1989) described clergy as being subjected to unrealistic social stereotypes and expectations including being good in a public, moral sense as well as devoted to serving others. Additionally, Hart (1984) depicted ministers as more sensitive to being placed on a pedestal and expected to perform at unrealistic levels. In writing of his own experience with clinical depression and resultant departure from the practice of ministry, Gaddy (1991) noted the lack of personal support and clearly defined occupational roles as significant factors in his depression.

The results of other studies have documented additional aspects of the ministry which, over time, increase the likelihood of distress. These factors include a growing depreciation of self-esteem (Blackmon, 1988), limited personal finances (Mills et al., 1971, 1972; Whittemore, 1991), inadequate continuing education (Blackmon, 1988; Mills & Hesser, 1972), and the predictable life stress associated with changes in venue of service (Jud et al., 1970). Added to this list of factors is the growing tendency of our society to want leadership on controversial issues, but only provided it comes formed in a method and content which is acceptable to the consumer's particular worldview. This aspect of the profession serves to increase stress

regarding the perceived need to be an authority and the freedom to express one's views at the expense of being engaged in conflict.

The effects of long-term role ambiguity, work strain, dissatisfaction with self-performance, and uncertain standards of evaluation are inherently detrimental to both clergy and counselors (Levi, 1990; Maeder, 1989). If left uninterrupted, these conditions have the potential for developing new or reinforcing established negative schemas. Such persistent conditions in the work environs are a seedbed for the entrenchment of a negative perception of self, world, and opportunity, Beck's (1976) cognitive triad for depression. As a result, increases in the potentiation of dysfunctional attitudes and a heightened vulnerability to depression can evolve.

That this study established the statistical evidence of a positive association between tenure in the profession and level of dysfunctional attitudes merits the attention of both professions. Notwithstanding the attenuating effect of age on the DAS score, conditions inherent in the long-term practice of the vocations appear to exacerbate rather than ameliorate the potentials of the negative schemas. For the clergy sample this is of especial concern in that their level of dysfunctional attitudes was found to be significantly higher than their counselor counterparts.

In conclusion, the results of this study confirmed that the mitigation of the level of dysfunctional attitudes gained from the normal aging process competes with the contrasting effect of the length of time in the profession. While this was demonstrated to be an effect for both groups in the study, the clergy cohort may be at

greater risk because of their significantly higher scores at outset on the DAS.

The Relationship between the Level of Dysfunctional Attitudes and Demographic Variables by Group

No evidence in this study established a statistically significant relationship between the level of dysfunctional attitudes and the demographic variables of age, gender, race or ethnic background, marital status, tenure in the profession, or type of service by group. Hypothesis 8 was not rejected.

Recommendations

Improvements in Study Design

The ability to identify and understand the content of the discrete schemas which contribute to the DAS score is important. While there is evidence for the construct validity of the DAS to assess the cognitive themes associated with negative schemas, a greater degree of specificity in and ability to identify the specific attitudes could facilitate future comparison studies. The isolation of attitudes may also be beneficial in assessment and the development of educational and therapeutic interventions.

For the purpose of this research, a comparison group was utilized to establish differences between the research populations based on ordination to the ministry. To avoid confounding effects, counselors who were also ordained were excluded from the data analysis. What is uncertain is the degree to which the religious and more general spiritual beliefs subscribed to by the counselors may have altered the differences between groups. Further study is

needed to determine if differences in level of spiritual or religious belief are related to levels of depression and dysfunctional attitudes.

Additionally, future studies may benefit from determining if an individual is a minister but does not hold ordained status. Within some religious traditions, the role of minister may be practiced without formal theological training or ordination of the type required of Presbyterian (USA) ministers. It may not have been efficient to have assumed that persons fitting these categories would self-exclude themselves from the study.

The potential for effect on the outcomes of the study imparted by participants currently under treatment for depression warrants attention. It is unknown how this factor may skew response. While the CES-D and DAS have discriminant properties associated with depression, little is known regarding response sets in depressed populations undergoing various treatment modalities (e.g., drug therapy, talk therapy, behavioral interventions). The use of random sampling and anonymous response procedures was incorporated to minimize the possibility of these undetermined effects.

The findings on the relationship of racial and ethnic background and status of possible depression established by the chi-square analysis merits attention. That too few responses were received in the categories associated with these populations for the test to be considered valid is unfortunate. Little is known about the level of depression and mental health in the professions sampled for this study. Further research focused on the racial and ethnic

categories identified by this study is a reasonable extension of this inquiry.

Implications for the Professions

It is unknown whether the dysfunctional attitudes endorsed by persons in this study are a product of learning acquired prior to entry into their respective professions. It is logical for research to seek to establish the degree to which attitudes and level of depression are promoted by factors within the profession's environment. Results of research on help-giving professions (Levi, 1990; Maeder, 1989) have indicated the significance of occupational strain associated with ambiguous roles, unreasonable expectations, and uncertain standards of performance. Inasmuch as scores for clergy in this study proved significantly higher on the DAS, considerable attention is warranted to better understand the combination of work-related factors which may contribute to symptoms of depression. Insight into these factors can assist in the identification of appropriate educational and organizational changes for the practice of the profession.

Continued study is also needed to clarify factors which may be associated with the exit of persons from their professions. While this study was limited to active professionals, it is no less important to examine the influences associated with professionals who take leave from their careers. Outcomes from such study will contribute to a better understanding of the nature of such factors, the levels of tolerance, pivotal decision points, and key intervention periods.

The findings of this study regarding the relationship between marital status and level of depression commend future study. Results from this study confirmed that persons who endorsed the single and marital status "other" categories were more vulnerable on level of depression. Within the Presbyterian denomination, variances in normative relationship patterns are discouraged. When made an issue of public forum, active homosexuality is grounds for barring admission to or removal from the profession. Anecdotal information provided voluntarily by participants in this study indicated the presence of several clergy who were in committed same sex relationships. Conclusions based on the statistical evidence of this study suggest further study of this phenomenon is reasonable and needed. Interim interventions by both professions might include the provision of supportive resources and educational materials to enhance the understanding of the profession's constituency on the effects of alienation on mental well-being.

Data gathered from this research established that 11.32% of the clergy and 15.6% of the counselors had scores which equaled or exceeded 17 on the measure of depressive symptoms. These findings identified these professionals as "possible" cases for depression based on the symptoms associated with the syndrome of depression. As noted earlier, these percentages exceed the lifetime prevalence rates for our society at large as established by the NIMH (1991).

A clear warning needs to be sounded by each of the professional associations. Rates of help seeking for mental health

distress on the part of Presbyterian ministers provide further evidence that a need exists for the denomination to acknowledge the severity of ministers' concerns. Interventions by both professional affiliations may include inservice training to assist in understanding the symptoms, function and course of depression, consciousness raising regarding factors associated with job stress (e.g., role ambiguity, heightened self-expectations, conflict avoidance), and the appropriateness of seeking therapeutic help. Additionally, denominational and professional bureaucrats need to train and make available personnel to identify professionals at risk and provide comprehensive referral resources.

The Presbyterian denomination can assist their clergy by demythologizing the role of the minister as a person somehow immune from the vicissitudes of daily life and developmental crises. Resistance to publicizing the state of its professionals' well-being serves to reinforce unhealthy stereotypes and promote unrealistic expectations on the part of the denomination's clergy and member constituents.

Finally, the results of this study point in the direction of a need to examine the effects of additional factors on level of depression in these two populations. So few empirical studies have been undertaken on clergy that a meta analysis across inquiries is very limited. While many variables have been articulated in other studies, few have as yet been brought together in a coordinated fashion for comprehensive research.

Independent factors worthy of future inquiry for clergy and counselors include level of income, marital satisfaction, a schedule of personal life events, access to leave time, provisions for and use of continued professional education, sources of social support, type of religious or spiritual belief, racial and ethnic background, and intimacy patterns (see Cadwallader, 1991). Information regarding the role of these variables in level of dysfunctional attitudes and level of depression can assist in designing and implementing more precise intervention strategies.

Dysfunctional Attitudes and Cognitive Immunity

The results of this research provided statistical evidence that cognitive schemas associated with depression were present in both survey samples. The mean scores for counselors (90.85) and clergy (103.62) approximated scores reported in other studies which utilized normal populations as controls to assess the ability of the DAS to discriminate on depressed and nondepressed psychiatric populations (Dobson & Shaw, 1986). The counselors' mean scores were, however, 10 points lower than means established by Oliver and Baumgart (1985) and Peselow et al. (1985) on the general population.

Importantly, the difference between the two groups' scores (12.77 points) was determined to be statistically significant ($p < .05$). This finding, when combined with the positive direction of association between scores on the DAS and CES-D (regression estimate = 0.1401), suggested the clergy sample to be at greater vulnerability to symptoms associated with depression. It is also

noteworthy to remember that findings in this study confirmed that for both groups the DAS increased with tenure in their respective professions.

It is logical to conclude that over time, combined with the effects of job-related stress, the increasing presence of these dysfunctional attitudes compromise whatever benefit may be accrued by virtue of age and status in the profession. The implementation of interventions which serve to identify and alter these schemas may promote beneficial effects.

The outcomes of the research call into question the efficacy of the Presbyterian ministers' theology to serve as a factor which significantly reduces the development of new or maintenance of existing dysfunctional schemas. As stated earlier, further study is called for to establish whether these schemas are endorsed during early development or find their origin in the environment of the profession. To provide an answer to this question, there needs to be a longitudinal study assessing the levels of and types of dysfunctional schemas endorsed by students enrolling for their professional training in seminary. Follow-up and comparison studies with professional cohorts through the course of their profession's developmental lifecycle would provide further substantiating evidence.

Additionally, research which undertakes to compare clergy cohort groups by age and tenure in the profession may illustrate particular points of cognitive vulnerability associated with the evolution of personal and professional identity. The outcomes of

such research can be beneficial in timing and targeting interventions to coincide with developmental transitions and crises associated with personal and professional identity.

In the meantime, it is reasonable to develop and implement programs to alter and attenuate the effects of dysfunctional schemas. As a component of their theological education, seminary students can be introduced to the problem and scope of depression in our society. Curricula can include the introduction of the cognitive, affective, and physiological dimensions of the disorder. Additionally, some component of the study can elucidate the cognitive theory of depression and elaborate the negative schemas associated with depression. These specific attitudes can be discussed to raise the students' self-awareness and elucidate the conditions in the professional environment which may promote the endorsement of the schemas.

Inservice education which elaborates the sources of job-related stress can be provided to ministers already established in their profession These continuing education activities need to include occasions for both formal and informal interaction amongst peers with a goal to normalize the ministers' personal experiences and vulnerability within a safe environment. These educational consultations will require the support of the denomination and its organizational hierarchy to create and sustain more realistic expectations of clergy on the part of the church's member constituents.

Presbyterian ministers and mental health counselors also need to be educated about the role of dysfunctional cognitive processes and the scope of depression. An introduction to the content of these attitudes and how they distort the professional's view of self, environment, and future is fundamental for the process of change. Opportunity for presentation of this material can be designed into existing curricula associated with training for the professions, workshops which comprise components of continuing education certification, and periodic professional assessment. Additionally, for clergy and counselors so inclined, the positive benefits of religious and spiritual belief can be called upon to support needed educational and help-seeking behaviors.

Finally, the governing bodies which oversee clergy can encourage local networks of ministers to identify professional referral resources for education and intervention. For these resources to become effective avenues for help, an organized and publicized advocacy on the part of the denomination for adequate health insurance benefits is important. The provision of both institutional and financial resources for seeking help for depression and other forms of mental distress is both desirable and necessary. Evidence has demonstrated that early and comprehensive intervention can serve to mitigate the course of depression, thereby reducing suffering and associated morbidity.

Chapter Summary

This chapter provided a discussion of results and recommendations derived from a study of cognitive factors

associated with depression in a comparison study of Presbyterian (USA) ministers and mental health counselors. The factors identified as having made statistically significant contribution to the level of depression and dysfunctional attitudes in the survey samples were elucidated. Suggestions to strengthen and focus future study which may emerge from this research were identified. Lastly, recommendations for comprehensive institutional interventions to provide needed educational and therapeutic resources to address the outcomes of this study were described.

APPENDIX A
DEMOGRAPHIC QUESTIONNAIRE FOR CLERGY

Your response to the following questions will provide helpful information about the participants in your profession. Respond to the following questions by selecting the answer which best represents you. Please answer all the questions.

Q1 Your gender. (Please circle the number of your answer)

1 MALE
2 FEMALE

Q2 Your age in years. (Print the number on the space provided below)

_____

Q3 Please indicate your current marital status (Circle the number)

1 SINGLE, NEVER MARRIED
2 MARRIED
3 DIVORCED
4 WIDOW/WIDOWER
5 OTHER _____

Q4 Your racial or ethnic background (Circle the number)

1 ASIAN/PACIFIC ISLANDER
2 AFRICAN-AMERICAN
3 HISPANIC
4 NATIVE AMERICAN
5 WHITE (Not of Latin origin)
6 OTHER

Q5 Your tenure in the profession by the number of years since ordination. (Print the number on the space provided below)

_____

Q6 Your primary vocational responsibility. (Please circle the number which most approximates your position)

1 PARISH/CONGREGATIONAL BASED MINISTRY
2 SPECIALIZED MINISTRY/INSTITUTIONAL

The following questions are included to give you an opportunity to discuss your experience and make suggestions helpful to the study. Please use the space provided.

Q7 What do you do to cope with stress associated with your daily work and life experiences?

Q8 What resources would be helpful to you in coping with stress associated with your work and daily life experiences?

THANK YOU VERY MUCH FOR YOUR COOPERATION. PLEASE MAKE SURE YOU HAVE ANSWERED ALL THE QUESTIONS. RETURN THE BOOKLET IN THE ENCLOSED SELF-ADDRESSED STAMPED ENVELOPE.

APPENDIX B
DEMOGRAPHIC QUESTIONNAIRE FOR COUNSELORS

Your response to the following questions will provide helpful information about the participants in your profession. Respond to the following questions by selecting the answer which best represents you. Please answer all the questions.

Q1 Your gender. (Please circle the number of your answer)

1 MALE
2 FEMALE

Q2 Your age in years. (Print the number on the space provided below)

_____

Q3 Please indicate your current marital status (Circle the number)

1 SINGLE, NEVER MARRIED
2 MARRIED
3 DIVORCED
4 WIDOW/ER
5 OTHER _____

Q4 Your racial or ethnic background (Circle number)

1 ASIAN/PACIFIC ISLANDER
2 AFRICAN-AMERICAN
3 HISPANIC
4 NATIVE AMERICAN
5 WHITE (Not of Latin origin)
6 OTHER

Q5 Your tenure in the profession by the number of years a member in the American Mental Health Counselors Association. (Print the number on the space provided below)

_____

Q6 Your primary vocational responsibility. (Please circle the number which most approximates your position)

1 COUNSELOR (Direct services)
2 ADMINISTRATOR/EDUCATOR

Q7 Do you hold ordination as a clergyperson? (Circle the number)

1 YES
2 NO

The following questions are included to give you an opportunity to discuss your experiences and make suggestions helpful to the study. Please use the space provided.

Q7 What do you do to cope with stress associated with your daily work and life experiences?

Q8 What resources would be helpful to you in coping with stress associated with your work and daily life experiences?

THANK YOU VERY MUCH FOR YOUR COOPERATION. PLEASE MAKE SURE YOU HAVE ANSWERED ALL THE QUESTIONS. RETURN THE BOOKLET IN THE ENCLOSED SELF-ADDRESSED STAMPED ENVELOPE.

APPENDIX C
CENTER FOR EPIDEMIOLOGICAL STUDIES'
DEPRESSION SCALE

Using the scale below, indicate the number which best describes how often you felt or behaved this way--**DURING THE PAST WEEK.**

0 = Rarely or none of the time (less than 1 day)
1 = Some or a little of the time (1 - 2 days)
2 = Occasionally or a moderate amount of time (3 - 4 days)
3 = Most or all of the time (5 - 7 days)

_____ 1. I was bothered by things that usually don't bother me.

_____ 2. I did not feel like eating; my appetite was poor.

_____ 3. I felt that I could not shake off the blues even with help from my family or friends.

_____ 4. I felt that I was just as good as other people.

_____ 5. I had trouble keeping my mind on what I was doing.

_____ 6. I felt depressed.

_____ 7. I felt that everything I did was an effort.

_____ 8. I felt hopeful about the future.

_____ 9. I thought my life had been a failure.

_____ 10. I felt fearful.

_____ 11. My sleep was restless.

_____ 12. I was happy.

_____ 13. I talked less than usual.

_____ 14. I felt lonely.

_____ 15. People were unfriendly.

_____ 16. I enjoyed life.

_____ 17. I had crying spells.

_____ 18. I felt sad.

_____ 19. I felt that people disliked me.

_____ 20. I could not get "going".

APPENDIX D
THE DYSFUNCTIONAL ATTITUDE SCALE

This questionnaire lists different attitudes or beliefs which people sometimes hold. Read *each* statement carefully and decide how much you agree or disagree with the statement.

For each of the attitudes, indicate to the left of the item the number that *best describes how you think.* Be sure to choose only one answer for each attitude. Because people are different, there is no right answer or wrong answer to these statements. Your answers are confidential, so please do not put your name on this sheet.

To decide whether a given attitude is typical of your way of looking at things, simply keep in mind what you are like *most of the time.*

1 = Totally agree
2 = Agree very much
3 = Agree slightly
4 = Neutral
5 = Disagree slightly
6 = Disagree very much
7 = Totally disagree

___ 1. It is difficult to be happy unless one is good looking, intelligent, rich, and creative.

___ 2. Happiness is more a matter of my attitude towards myself than the way other people feel about me.

___ 3. People will probably think less of me if I make a mistake.

___ 4. If I do not do well all the time, people will not respect me.

___ 5. Taking even a small risk is foolish because the loss is likely to be a disaster.

___ 6. It is possible to gain another person's respect without being especially talented at anything.

___ 7. I can not be happy unless most people I know admire me.

___ 8. If a person asks for help, it is a sign of weakness.

___ 9. If I do not do as well as other people, it means that I am an inferior human being.

___ 10. If I fail at my work, then I am a failure as a person.

___ 11. If you cannot do something well, there is little point in doing it at all.

___ 12. Making mistakes is fine because I can learn from them.

___ 13. If someone disagrees with me, it probably indicates s/he does not like me.

___ 14. If I fail partly, it is as bad as being a complete failure.

___ 15. If other people know what you are really like, they will think less of you.

___ 16. I am nothing if a person I love doesn't love me.

___ 17. One can get pleasure from an activity regardless of the end result.

___ 18. People should have a reasonable likelihood of success before undertaking anything.

___ 19. My value as a person depends greatly on what others think of me.

___ 20. If I don't set the highest standards for myself, I am likely to end up a second rate person.

___ 21. If I am to be a worthwhile person, I must be truly outstanding in at least one major respect.

___ 22. People who have good ideas are more worthy than those who do not.

___ 23. I should be upset if I make a mistake.

___ 24. My own opinions of myself are more important than others' opinions of me.

___ 25. To be a good, moral, worthwhile person, I must help everyone who needs it.

___ 26. If I ask a question, it makes me look inferior.

___ 27. It is awful to be disapproved of by people important to you.

___ 28. If you don't have other people to lean on, you are bound to be sad.

___ 29. I can reach important goals without slave driving myself.

___ 30. It is possible for a person to be scolded and not get upset.

___ 31. I cannot trust other people because they might be cruel to me.

___ 32. If others dislike you, you cannot be happy.

___ 33. It is best to give up your own interests in order to please other people.

___ 34. My happiness depends more on other people than it does on me.

___ 35. I do not need the approval of other people in order to be happy.

___ 36. If a person avoids problems, the problems tend to go away.

___ 37. I can be happy even if I miss out on many of the good things in life.

___ 38. What other people think about me is very important.

___ 39. Being isolated from others leads to unhappiness.

___ 40. I can find happiness without being loved by another person.

APPENDIX E
ANNOUNCEMENT CARD

Dear Colleague:

Within the next ten days you will receive materials notifying you of your selection to participate in a study of helping professionals. This research seeks to advance our knowledge about how attitudes toward life are related to general well-being.

You have been selected in a nationwide random sample of counselors *(or clergy)* for this study. It is important that each questionnaire be returned in order to construct a fair representation of your profession. Your contribution is, therefore, very important.

Completion of the materials for this study requires between twenty and thirty minutes. Particular attention will be paid to protect your anonymity and confidentiality. In advance I want to thank you for your consideration and willingness to participate.

This research is associated with my doctoral dissertation in counselor education at The University of Florida. If for some reason you have not received the study materials within two weeks of receiving this notification, please write or call me collect. My daytime telephone number is (904) 376-7539. Mail may be sent to P.O. Box 13975, Gainesville, Fl. 32604.

Sincerely,

Wayne D. Griffin
Principal Investigator

APPENDIX F
COVER LETTER

Dear Colleague:

The purpose of this letter is to invite you to participate in a study on how attitudes toward life relate to a person's general well-being. This research seeks to advance our understanding of these relationships.

You are one of a small number of helping professionals being asked to contribute to my doctoral dissertation research on this subject. Your name was drawn from a random sample of your professional affiliation from across the country. In order to assure the results of this inquiry are representative of your profession, it is important each questionnaire be completed and returned.

Your voluntary participation is valuable. You may be certain your identity will be kept confidential. You are asked to respond to the enclosed questionnaires anonymously. Your identification will at no time be transferred to the questionnaire. Information from the study will be reported in aggregate format only. While there are no direct benefits to you for your participation, you will be contributing to the body of knowledge about attitudes toward life and general well-being. There are no anticipated risks to participation. However, if you have concerns after filling out the questionnaire and wish to talk with me, please call me at the number listed below. You are free to withdraw your participation at any time with no prejudice against you.

I am most happy to answer any questions you may have. Please write or call collect. The day time telephone number is (904-376-7539). Mail may be sent to me at P.O. Box 13975, Gainesville, Fl. 32604. Thank you for your time and assistance.

Sincerely,

Wayne D. Griffin
Principal Investigator

APPENDIX G
FOLLOW-UP CARD

Dear Colleague:

Last week a questionnaire requesting your participation in a study involving helping professionals was mailed to you. You were selected in a nationwide random sample as a representative of your professional affiliation.

If you have already completed and returned the questionnaire, I want to extend my appreciation for your contribution. If for some reason you have not yet returned your questionnaire in the postage paid, preaddressed envelope, I want to encourage you to do so. It is important each questionnaire be returned to assure a representative sample of your profession is included in the results of the study.

If for any reason you did not receive the mailing of the questionnaire, or the materials were misplaced, please call me collect at your earliest convenience. A new packet of materials will be mailed to you. My phone daytime telephone number is (904) 376-7539. In the evening I may be reached at (904) 378-3202.

Thank you very much for your contribution to the study.

Sincerely,

Wayne D. Griffin
Principal Investigator

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BIOGRAPHICAL SKETCH

Wayne David Griffin was born on August 5, 1946, in West Palm Beach, Florida. He received an Associate of Arts degree from Palm Beach Junior College in 1966. His undergraduate education was completed at Florida Atlantic University, where he was awarded a Bachelor of Arts degree in 1968.

Mr. Griffin was married to Nancy McDowell in 1968. In that same year he also began graduate study at Columbia Theological Seminary in Decatur, Georgia. In 1971 he received his Master of Divinity degree and was ordained into the United Presbyterian Church (USA) to begin a residency as a chaplain at North Georgia Regional Mental Health Hospital in Atlanta, Georgia.

In 1973 Mr. Griffin moved to Perry, Florida, where he served as the pastor of the First Presbyterian Church. His daughter, Heather, was born shortly after their arrival. From 1976 to 1981, he worked as the associate and interim administrative minister of the First Presbyterian Church in Gainesville, Florida.

In 1980, Columbia Theological Seminary awarded Mr. Griffin the Doctor of Ministry degree. His dissertation project was the development of an educational and interactional model for the assessment and management of interpersonal conflict. He received the M.Ed. and Ed.S. degrees in counselor education from the

University of Florida in 1990. His major area of study was mental health counseling.

Following his graduation, Mr. Griffin will continue in his role as the campus minister of the Disciples and Presbyterian Student Center in Gainesville, Florida, where he has worked since 1981.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Gerardo M. Gonzales, Chairman
Professor of Counselor Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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